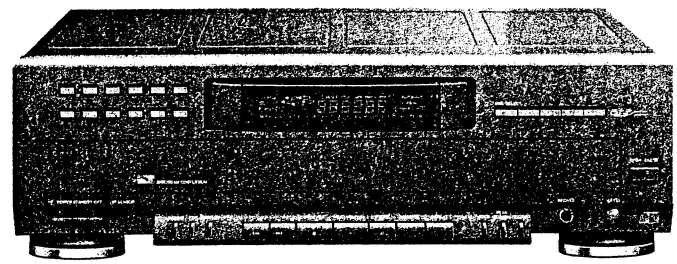
Compact disc player CDC916 CDC926

CDC916/00S CDC926/17S
CDC916/17S

Service
Service
Service



ServiceManual

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ECHNICAL SPECIFICATIONS

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.Mains voltage	/00S/02B	: 220-230V (+11 -10%)
	/07B	: 240V (+10 -12%)
	/01S	: 110V,127V,220V,230-240V(±10%) Selectable by voltage selector
	/17S/UBL	: 120V (±10%)
2.Mains frequency		: 50-60 Hz
3.Mains voltage selection		: see circuit diagram power supply
4.Power consumption mains, operated		: 10W

Line output

1.Number of channels	: 2
2.Output voltage	: 2 Vrms ± 2 dB
3.Unbalance left-right	: max. 1,2 dB
4.Output resistance	: 1 kΩ
5.Amplitude linearity	: max. ± 0.4 dB from 20 Hz to 20 kHz
6.Phase non-linearity	: ± 5.0° from 20 Hz to 20 kHz
7.Out-band attenuation	: min 35 dB above 40 kHz
8.Signal to noise ratio	: min. 95 dB from 20 Hz to 20 kHz
9.Dynamic range (-60 dB)	: min. 85 dB from 20 Hz to 20 kHz
10.Total harmonic distortion + noise	: min. 80 dB from 20 Hz to 20 kHz
11.Intermodulation distortion	: min. 85 dB max. 1 kHz
12.Channel separation	: min. 85 dB from 20 Hz to 20 kHz
13.Automatic switched deemphasis with time constant 15/50 µs	
14.Non linearity at -90 dB	: typical ±1 dB

Variable headphone (low end)

1.Output voltage	: max. 5 Vrms ± 2dB
2.Unbalance left-right	: max. ± 1.2dB
3.Output resistance	: 120 Ω
4.Load impedance range	: 32 Ω to 600 Ω load
5.Output power	: 0 to 30 mW into 32 Ω load
	: 0 to 50 mW into 120 Ω load
	: 0 to 30 mW into 600 Ω load

Audio specs with 20 kHz/13th order Cauer filter

6.Signal to noise ratio(1 kHz)	: min. 90 dB(digital silence detection)
7.Dynamic range	: min. 75 dB (20 Hz -20 kHz)
8.Total harmonic distortion	: min. 70 dB (19 Hz - 20 kHz)
9.Channel separation	: min. 70 dB (1 kHz)(digital silence detection)
	: min. 65 dB (20 Hz - 20 kHz)(dig. sil. det.)

Dimensions and weight

1.Apparatus tray closed	: WxDxH 435 x 300 x 90/106 mm
2.Apparatus tray open	: WxDxH 435 x 500 x 90/106 mm
3.Weight	: 7,5 kg

Optical read-out system

1.Laser type	: Semiconductor AlGaAs
2.Wavelength	: 780 nm ± 20 nm
3.Light output (c.w.)	: max. 0.5 mW

INSTRUCTIONS FOR USE

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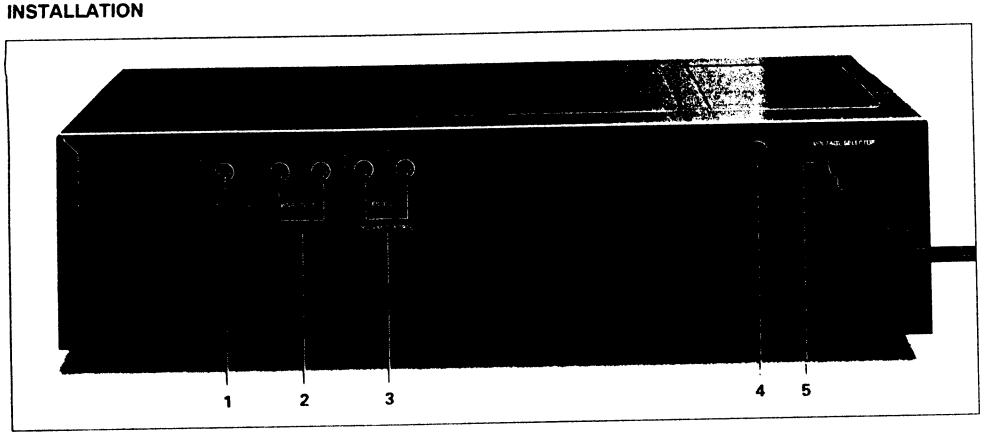
INTRODUCTION

Thank you for selecting the Philips CDC 916/926 Compact Disc Changer.

A Compact Disc Changer of the state-of-the-art Philips 900 series, the CDC 916/926 combines supreme playback quality with a high degree of user-friendliness by offering the following possibilities:

- changing CDs during play;
- quick access to a particular CD by means of QUICK PLAY;
- storing 30 tracks from different CDs in any desired order in the changer memory;
- storing the required recording time and playing time in the EDIT mode;
- full integration in ESI remote-controllable HiFi systems of the Philips 900 series.

INSTALLATION



POWER SUPPLY SETTING

- Check that the type plate on the rear of your changer indicates the correct supply voltage.
- If your mains supply voltage is different, consult your dealer or our Service Organisation.

Certain versions of this changer are equipped with a voltage selector ***5***, which enables you to set the player to the correct mains voltage yourself. When changing the voltage setting, it is also necessary to change the mains fuse ***4*** to one of the correct rating: T200 mA (slow blow fuse) for 110/127 V;
T80 mA (slow blow fuse) for 220 V - 230 V/ 230 V - 240 V.

SITING THE COMPACT DISC CHANGER

Free standing

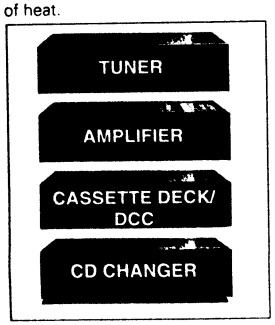
- Always position the changer horizontally on a flat, firm surface.
- Allow a free space of at least 3 cm above the changer so as not to interfere with the cooling of the changer.

In an audio rack

- The changer can be sited in any desired position.

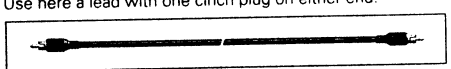
Stacked

- Site the changer preferably at the bottom or at the top.
- Never position the changer directly on top of a high-power amplifier, as such an amplifier gives off a substantial amount of heat.



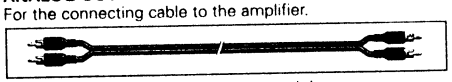
CONNECTIONS

1 DIGITAL OUT
This output supplies a digital signal and can therefore only be connected to an input which is suitable for this signal. Use here a lead with one cinch plug on either end.



Never connect this socket to a non-digital input of an amplifier, such as AUX, CD, TAPE, PHONO, etc!

2 ANALOG OUT
For the connecting cable to the amplifier.



- Insert a red plug into the 'R' socket and the other plug into the 'L' socket.
- Insert the two other plugs into the corresponding sockets of the CD or AUX input of your amplifier.
  You can also use the TUNER or TAPE IN connection, but ***never*** the PHONO input!

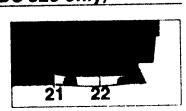
3 ESI BUS (Enhanced System Intelligence)
For connecting up the equipment when you are incorporating the changer in a HiFi system with ESI BUS connection (e.g. the PHILIPS 900 series) or its own remote control system.

4 Mains fuse holder *(not all versions)*
See 'POWER SUPPLY SETTING'.

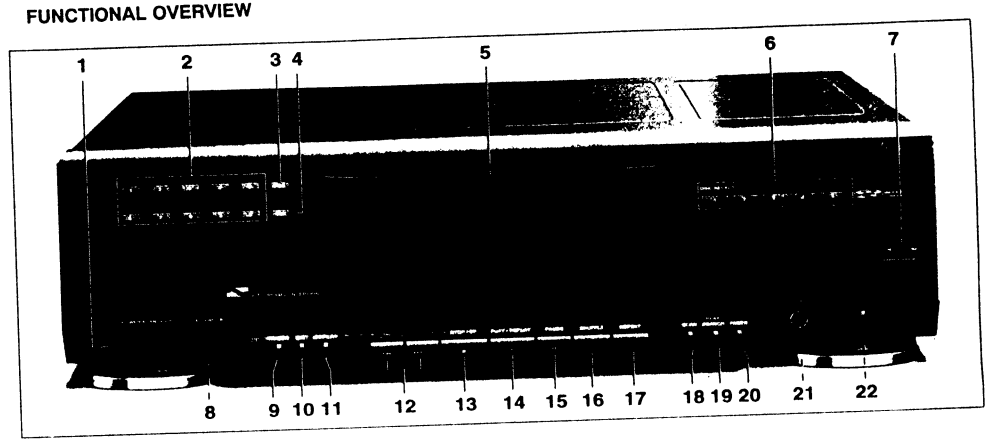
5 Voltage selector *(not all versions)*
See 'POWER SUPPLY SETTING'.

CONNECTING HEADPHONES *(CDC 926 only)*

- Connect headphones with a 6.3 mm jack plug to the PHONES socket ***21***.
- The sound level is adjusted with the LEVEL control ***22***.



FUNCTIONAL OVERVIEW



FRONT OF CHANGER

1 POWER STANDBY/OFF – Switching on and off.

2 1-0 digit buttons
- Selecting another track during play.
- Selecting a track to start play with.
- Selecting tracks when compiling a programme.
- Selecting the recording time when making a tape recording (EDIT).

3 PRG (programme) – Opening and closing the memory when compiling a programme.

4 CLR (clear)
- Erasing a programme.
- Erasing track numbers from a programme.

5 Display – Informs you about the functioning of the player.

6 DISC SELECT
- Selecting another CD during play.
- Selecting a CD to start play with.
- Selecting CDs when compiling a programme.

7 OPEN/CLOSE – Opening and closing the CD compartment.

8 I(nfra) **R**(ed) **SENSOR *(CDC 926 only)*** – Receives the signals from the remote control.

9 REVIEW – Checking a programme.

10 EDIT – Activating the EDIT function when making a tape recording.

11 DISPLAY – Selecting the information you want to see on the display.

12 ⏮ ⏭
- Selecting another track during play.
- Selecting a track to start play with.
- Fast search to a particular passage during play.
- Selecting the recording mode when making a tape recording.
- Selecting the recording time when making a tape recording.

13 STOP/CP
- Stopping play.
- Erasing a programme (CP = Clear Programme).

14 PLAY/REPLAY
- Starting play.
- Returning to the beginning of a track.

15 PAUSE – Interrupting play.

16 SHUFFLE – Playing in random order.

17 REPEAT – Repeating play.

18 SCAN – Automatically playing the beginning of each track.

19 PEAK SEARCH – Searching the loudest passage (peak) on a CD or in a programme when making a tape recording.

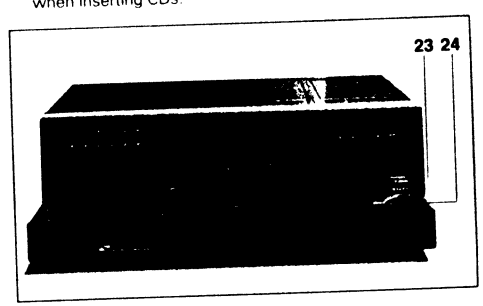
20 FADER – Fading in and out during play.

21 PHONES *(CDC 926 only)* – Connecting headphones.

22 LEVEL *(CDC 926 only)* – Adjusting the volume when listening with headphones.

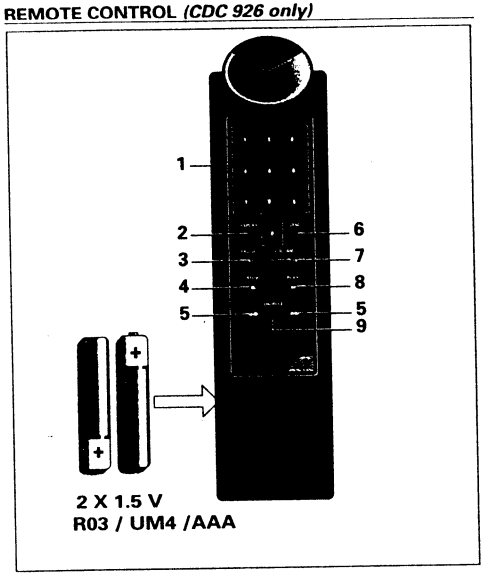
23 QUICK PLAY – Immediate playing of a particular CD.

24 LOAD – Rotating the turntable in the CD compartment when inserting CDs.



FUNCTIONAL OVERVIEW

REMOTE CONTROL *(CDC 926 only)*



1 **1-0 digit buttons**
- Selecting another track during play.
- Selecting a track to start play with.
- Selecting tracks when compiling a programme.
- Selecting the recording time when making a tape recording (EDIT).

2 **DISPLAY** – Selecting the information you want to see on the display.

3 **PAUSE** – Interrupting play.

4 **STOP** – Stopping play.

5 ⏮ ⏭
- Selecting another track during play.
- Selecting a track to start play with.
- Fast search to a particular passage during play.
- Selecting the recording mode when making a tape recording.
- Selecting the recording time when making a tape recording.

6 **DISC**
- Selecting another CD during play.
- Selecting a CD to start play with.
- Selecting CDs when compiling a programme.

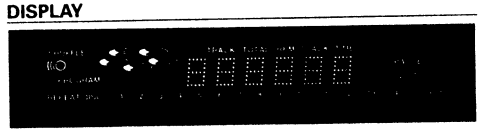
7 **– VOLUME +** – Adjusting the sound level when the changer is connected via the ANALOG OUT output or the DIGITAL OUT output to an amplifier or HiFi system *without* its own remote control.

8 **PLAY** – Starting play.

9 **SHUFFLE** – Playing in random order.

- The life of the batteries of the remote control is around one year. For replacement only use batteries of the type R03, UM4 or AAA.
- When the changer is incorporated in a HiFi system with ESI BUS connection, the changer can then be operated with the remote control of the system.

DISPLAY



SHUFFLE – Lights up when the tracks are played in random order.
(((**(CDC 926 only)** – Lights up when the changer receives a command from the remote control.
- Flashes when a programme is being compiled.
- Lights up when a programme is being played.

REPEAT DISC – Lights up when you repeat a CD.
REPEAT – Lights up when you repeat all CDs or a programme from them.
1 - 5 CD number indicator
- Flashes when you switch the changer on.
- Indicates the number of CDs in the CD compartment.
- Indicates what CD is being played.

TRACK – Indicates:
- what track is being played;
- the number of tracks on a CD or in a programme.

TRACK TIME – Indicates the elapsed playing time of the track being played.
REM(aining) **TRACK TIME** – Indicates the remaining playing time of the track being played.
TOTAL REM(aining) **TIME** – Indicates the remaining playing time of a CD.
TOTAL TIME – Indicates the total playing time of a CD.
PAUSE – Lights up when play is interrupted.
EDIT – Lights up when the player is put into the EDIT mode.
1-15 track number indicator – Shows the number of tracks on a CD.
+15 – Lights up when there are more than 15 tracks on a CD.

Display messages:

rEAd

Lights up when a CD's contents list is being scanned.

nod ISC

Lights up when there are no CDs in the CD compartment.

nO AUd IO d ISC

Lights up when insert a non audio CD (CD ROM, CD-I or CDV).

nOt POSS IbLE

Lights up when you select a non-existent track number.

GO tO PLAY

Lights up if you try to activate a function for which you must first start play.

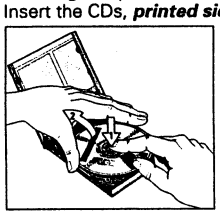
GO tO StOP

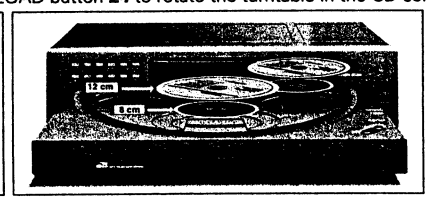
Lights up if you try to activate a function for which you must first stop play.

INSERTING THE CDs

NOTE! *Use only audio CDs; no CD-ROM, CD- I or CDV.*

- Press POWER STANDBY/OFF ***1*** to switch the changer on.
- The changer will now start CD detection to check how many CDs there are in the CD compartment. The turntable will rotate slowly until all positions (1 - 5) in the CD compartment have been checked.
- The position which is being checked is always shown on the display *(DISC X).*
- After CD detection the 1-5 CD number indicator will show the number of CDs in the CD compartment.
- Open the CD compartment by pressing OPEN/CLOSE ***7***.
- *OPEN* lights up.
- Insert the CDs, ***printed side up***; use the LOAD button ***24*** to rotate the turntable in the CD compartment.





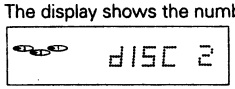
- Close the compartment by pressing OPEN/CLOSE ***7***.
- *CLOSE* lights up. The changer will start CD detection again.

NOTE!

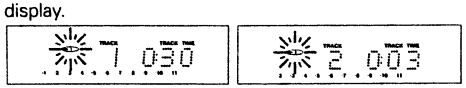
- CD detection may *never* be interrupted. If, during detection, you press any button, then the changer will stop detection and the display will give an incorrect indication of the number of CDs in the CD compartment.
- ***Always*** remove all CDs from the CD compartment if you want to transport the changer.

NORMAL PLAYBACK (PLAY/REPLAY)

- The display shows the number of the current CD.



- Press PLAY/REPLAY ***14*** to start playback.
- *READ* lights up and play starts from the first available CD.
- The CD number indicator (1-5) always shows what CD is being played (▶ X) and the track number indicator (1-15) shows how many tracks are on the CD; when a track has been played, its number disappears.
- The track being played and its elapsed playing time are shown under TRACK and TRACK TIME. See 'CALLING UP INFORMATION ON THE DISPLAY' on page 10 if you wish to see other information on the display.



- Play will stop after all CDs have been played.
- Press POWER STANDBY/OFF ***1*** to switch the changer off.

NOTE!

- You can also press PLAY/REPLAY ***14*** immediately after inserting the CDs; the compartment then closes automatically.
- Use the PREFERRED POSITION in the CD compartment if you wish to insert only *one* CD and then start play by pressing the QUICK PLAY button ***23***. Play will then start immediately with the inserted CD.
- You can interrupt playback by pressing PAUSE ***15***; PAUSE then lights up. Press PLAY/REPLAY or PAUSE to restart.
- If you press PLAY/REPLAY *during play,* the current track will start again from the beginning.
- You can stop playback by pressing STOP/CP ***13***.
- If you press OPEN/CLOSE ***7*** *during play,* the CD compartment will open while play continues. The three CDs *outside* the changer may now be changed without playback being interrupted.

SELECTING ANOTHER TRACK DURING PLAY (1-0)

- Key in the desired track number (on the current CD); numbers consisting of two figures must be keyed in ***within 2 seconds***.
- The music stops and a moment later the selected track begins to play.

NOT POSSIBLE lights up if you select a non existent number. You can also select the number by using ▶▶| or |◀◀ ***12*** *(press less than 0.5 seconds).*

SELECTING ANOTHER CD DURING PLAY (DISC SELECT)

- Key in the desired CD number.
- The music stops and a moment later the selected CD begins to play.

NOT POSSIBLE lights up if you select a non-existent number. You can also select the number by using the DISC button ***6*** on the remote control ***(CDC 926 only)***.

SEARCHING FOR A PASSAGE DURING PLAY (|◀◀ ▶▶|)

- Hold |◀◀ ***12*** down to search backwards to the beginning.
- Hold ▶▶| ***12*** down to search forwards to the end.

The searching speed is determined by how long a key is pressed:
- the first 2 seconds fairly slowly, with sound;
- then at the maximum speed, with no sound.

If you reach the end of the last track and release ▶▶|, play will resume a few seconds before the end of the CD.

STARTING WITH A PARTICULAR CD (DISC SELECT)

- Key in the required CD number.
- If the CD compartment was open, it will now close.
- Play starts from the selected CD.

NOT POSSIBLE lights up if you select a non-existent number. You can also select the number by using the DISC button ***6*** on the remote contro ***(CDC 926 only)***.

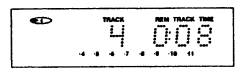
STARTING WITH A PARTICULAR TRACK (1-0)

- First select the number of the required CD using DISC SELECT ***6*** or DISC ***6*** on the remote control ***(CDC 926 only)***.
- Then key in the required track number (numbers consisting of two figures must be keyed in ***within 2 seconds***).
- If the CD compartment was open, it will now close.
- Play starts from the selected track.

You can also select the (track) number by using ▶▶| or |◀◀ ***12*** *(press less than 0.5 seconds)* and then pressing PLAY/REPLAY ***14***.
NOT POSSIBLE lights up if you select a non-existent (track) number.

SCANNING CDs (SCAN)

All CDs:
- Press SCAN ***18*** before or during play.
- If the CD compartment was open, it will now close.
- *SCAN* lights up and the first 10 seconds of each track are played in turn (starting from the current track). 10 seconds are counted down each time under REM(aining) TRACK TIME.

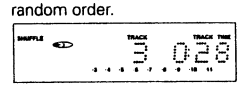


- When the player reaches a track which you wish to hear in full, press SCAN again or PLAY/REPLAY ***14***.

One CD:
- Select the number of the required CD using DISC SELECT ***6*** or DISC ***6*** (on the remote control ***- CDC 926 only***).
- Press SCAN ***18***, ***within the time*** the CD number is flashing on the display.
- Now only the first 10 seconds of each track on the selected CD will be played in turn.

PLAYING IN RANDOM ORDER (SHUFFLE)

All CDs:
- Press SHUFFLE ***16*** before or during play.
- If the CD compartment was open, it will now close.
- SHUFFLE lights up and all the tracks are now played in a random order.

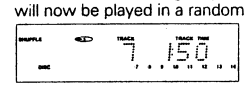


- If you press ▶▶| ***12***, you will select any one of the following tracks.
- Press SHUFFLE again if you wish to return to normal play.

NOTE!

If, during play, you open the CD compartment to change CDs (see 'NORMAL PLAYBACK' on page 8) then playback in random order will be cancelled. Playback will stop as soon as the last track of the current CD has been played (in normal order).

One CD:
- Select the number of the required CD using DISC SELECT ***6*** or DISC ***6*** (on the remote control ***- CDC 926 only***).
- Press SHUFFLE ***16***, ***within the time*** the CD number is flashing on the display.
- DISC and SHUFFLE light up; the tracks of the selected CD will now be played in a random order.

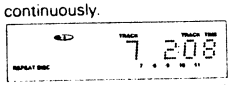


- If you press ▶▶| ***12***, you will select any one of the following tracks.
  If you press REPEAT ***17***, the tracks will be repeated in a different order each time, although the first track will always be the same.
- When all tracks of the selected CD have been played, playback stops.
- Press SHUFFLE again if you wish to return to normal play.

PLAYBACK

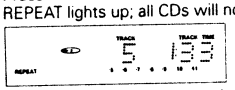
REPEATING PLAY (REPEAT)

Repeating a CD:
- Press REPEAT ***17*** before or during playback of the CD.
- REPEAT DISC lights up; the CD will now be repeated continuously.



- Press REPEAT *twice* to stop the CD being repeated.

Repeating all CDs:
- Press REPEAT ***17*** *twice* before or during playback.
- REPEAT lights up; all CDs will now be repeated continuously.

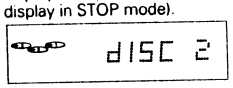


- Press REPEAT again to stop the CDs being repeated.

CALLING UP INFORMATION ON THE DISPLAY (DISPLAY)

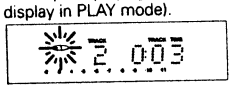
In STOP mode:

Text display
- After loading the CDs and closing the CD compartment, the display shows the number of the CD to be played (= default display in STOP mode).

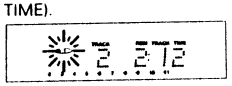


During play:

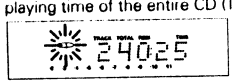
1. **Time display**
- When you start play (from STOP mode), the display shows the elapsed playing time of the current track (= default display in PLAY mode).



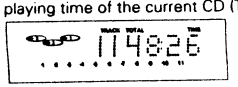
- Press DISPLAY ***11*** whenever you want to know the remaining playing time of the current track (REM TRACK TIME).



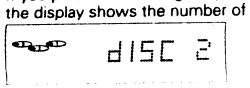
- Press DISPLAY again if you wish to know the remaining playing time of the entire CD (TOTAL REM TIME).



Note - TOTAL REM(aining) TIME indication is *not* available in SHUFFLE mode.
- If you wish to know the total playing time of the entire CD you must go back to STOP mode *first* and *then* press DISPLAY.
- The display now shows the number of tracks and the total playing time of the current CD (TOTAL TIME).



2. **Text display**
- If you press DISPLAY again, you will switch to text display; the display shows the number of the current CD.

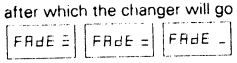


ACTIVATING THE FADE- IN AND FADE-OUT FUNCTION (FADER)

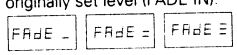
NOTE!

The FADER function can be used if the changer is connected to the amplifier or the system via the ANALOG OUT output or the DIGITAL OUT output.

- During play press FADER ***17***.
- The sound level will now gradually decrease (FADE OUT), after which the changer will go into the PAUSE mode.

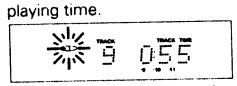


- Press FADER again.
- Play continues and the sound level will increase again to the originally set level (FADE IN).



SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)

- In STOP mode, press PEAK SEARCH ***19***.
- *SELECT DISC* lights up.
- Select the number of the required CD using DISC SELECT ***6*** or DISC ***6*** *(on the remote control -* ***CDC 926 only****)*.
- The CD will now be scanned for the loudest passage (the peak).
- The display shows the track being scanned and its elapsed playing time.



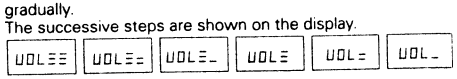
- When the loudest passage has been found it will be repeated continuously (from 2 seconds before the peak until 2 seconds after the peak)
- You can now adjust your recording device.
- You can stop the scan by pressing STOP/CP ***13***; if you press PLAY/REPLAY ***14***, the CD will be played from the beginning.

NOTE!
- When searching for the loudest passage in a programme (from one or more CDs) there is no need to enter the CD number(s).
- If you wish to record tracks from different CDs you have to repeat peak search for each CD.

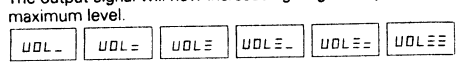
ADJUSTING THE SOUND LEVEL (– VOLUME + - ***CDC 926 only***)

NOTE!
- Use the – VOLUME + keys *(on the remote control -* ***CDC 926 only****)* only if the player is connected via the ANALOG OUT output or the DIGITAL OUT output to an amplifier or HiFi system *without* its own control.
- The setting chosen with – VOLUME + will be cancelled when the player is switched off.

- Hold – VOLUME ***7*** *(on the remote control)* pressed down.
- The output signal from the player will now decrease gradually.
- The successive steps are shown on the display.



- Release the key as soon as the required sound level is obtained.
- Hold VOLUME + ***7*** *(on the remote control)* pressed down.
- The output signal will now increase again gradually to the maximum level.



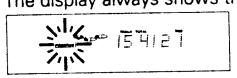
- Release the key as soon as the required sound level is obtained.

PROGRAMMING

STORING A PROGRAMME (PRG and 1-0)

- By programming the changer you can play up to 30 tracks in any required sequence.
- *FULL* lights up if you exceed the maximum of 30 tracks.
- *NOT POSSIBLE* lights up if you select a non-existent CD number.
- *USE 0-9* lights up if you press ▶▶| or |◀◀ ***12*** while programming.

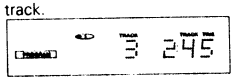
- In STOP mode, press PRG (programme) ***3*** to open the memory.
- *SELECT DISC* lights up and [redacted] starts flashing.
- Select the number of the first required CD using DISC SELECT ***6*** or DISC ***6*** (on the remote control - ***CDC926 only***).
- Key in the required track numbers of the selected CD using the 1-0 digit buttons ***2***.
- Every track number you enter in this way will be included immediately in the programme.
- The display always shows the number of tracks and the playing time of your programme.



- If you wish to store tracks from another CD, you should first enter the number of the CD.
- Press PRG to quit the PROGRAM mode.
- Press PLAY/REPLAY ***14*** to play the programme.

CHECKING THE PROGRAMME (REVIEW)

- Press REVIEW ***9*** prior to, during or after programmed play.
- *REV* lights up and all CD and track numbers appear in the programmed sequence on the display.
- Under TRACK TIME you will see the playing time of each track.



NO PROG will light up if no track numbers have yet been stored.
With REVIEW you can proceed more rapidly to the next block of information.

PLAYING THE PROGRAMME (PLAY/REPLAY)

- Press PLAY/REPLAY ***14***.
- Playback starts with the first number of the programme.

The EDIT ***10***, PRG ***3*** and CLR ***4*** and PEAK SEARCH ***19*** buttons *cannot* be used during programmed play.
Search for a particular passage is only possible within the track being played.

ERASING A PROGRAMME (STOP/CP, CLR or OPEN/CLOSE)

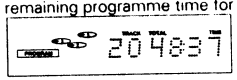
In PLAY mode:
- Press OPEN/CLOSE ***7*** or STOP/CP ***13*** *(twice)*.

In STOP mode:
- Press OPEN/CLOSE ***7***, CLR ***4*** or STOP/CP ***13***

- The programme has now been erased.

ERASING A TRACK FROM A PROGRAMME (CLR)

- Press REVIEW ***9*** before or after programmed play (STOP mode).
- All CD and track numbers appear in the programmed sequence on the display.
- Press CLR (clear) ***4*** as soon as the number you wish to erase appears.
- The number has now been erased.
- The display shows the remaining number of tracks and the remaining programme time for a few seconds.



NO PROG will light up if no track numbers have yet been stored and if you have not pressed REVIEW first before cancelling.

EDIT

The EDIT function has two recording modes in which you can store the recording time of the tape in the changer memory.

EDIT NORMAL – The changer will determine which tracks fit on each side of the tape and will stop after the last track. The tracks will be recorded in the order in which they appear on the CD(s).
EDIT OPTIMAL – The changer now calculates the combination of tracks that will optimize the use of available recording time.

NOTE!

- The EDIT function ***cannot*** be used for CDs containing more than 30 tracks.
- The – VOLUME + keys on the remote control ***(CDC 926 only)*** may not be used during recording as they affect the strength of the signal from the changer.

BEFORE RECORDING

Preparation:

- A programme to be recorded, must be stored in advance. See 'PROGRAMMING' on page 12.
- If required you can search the loudest passage and adjust your recording device. See 'SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)' on page 9.
  This can also be done *after* selecting the recording mode and the recording time. See below.
- Press EDIT ***10*** to activate the EDIT mode.
- – lights up and *SELECT DISC* appears on the display.
- Select the number of the required CD using DISC SELECT ***6*** or DISC ***6*** *(on the remote control* ***- CDC 926 only****)*.
  When recording a programme there is no need to enter the CD number(s).

Selecting the recording mode:

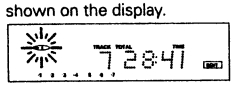
- The display shows *EDIT* (= EDIT NORMAL which is the default setting).
- With ⏮ ⏭ ***12*** you can now select OPT(imal), CANCEL or EDIT (NORMAL) again.
- The display shows *OPT(imal), CANCEL,* or *EDIT* again.
- Press EDIT ***10*** to store the required recording mode (NORMAL or OPTIMAL).
  If you select CANCEL, the EDIT mode will be cancelled and the changer will go back to STOP mode.
- As soon as you have stored the recording mode the display shows C90 (default setting).

Selecting the recording time:

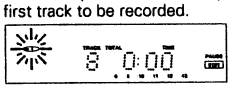
- As soon as you have stored the recording mode the display shows C90 (default setting).
- With ⏮ ⏭ ***12*** you can now select the required recording time:
  C 100, C 105, C 120, C30, C45, C60, C75 or C90.
- Other recording times can be selected using the 1-0 digit buttons ***2***; in EDIT NORMAL mode the recording time must be at least equal to the playing time of the first track on the first CD or in the programme.
  In EDIT OPTIMAL mode the recording time must be at least equal to the playing time of the shortest track on the CD(s) or in the programme.
- *NOT POSSIBLE* lights up if you select a 'wrong' time.
- Press EDIT ***10*** to store the required recording time.
- The CD changer will now go back to STOP mode
- You can now record the CD or the programme.

RECORDING

- Press PLAY/REPLAY ***14***.
- Playback starts with the selected CD (or with the first track of the programme).
- The display shows the elapsed playing time of the current track for 5 seconds, followed by the number of the current CD (= text display).
- Press DISPLAY ***11*** to switch to time display information.
- The number of tracks for side A and their playing time are shown on the display.



- After the last track that fits on side A of the tape, the CD changer will go into PAUSE mode.
- PAUSE lights up.
- The track number indicator shows which tracks fit onto side B of the tape. Under TRACK you will see the number of the first track to be recorded.



- Turn the tape over or select the tape travel direction for side B.
- Press PLAY/REPLAY ***14***.
- The remaining tracks will now be played.
- After the last track play will stop; *EDIT CANCELLED* lights up.

NOTE!

- As soon as you press PLAY/REPLAY ***14*** the other changer functions will temporarily be switched off to prevent the recording being interfered with; *EDIT ACTIVE* lights up if you press one of the other buttons during recording.
- You can quit the EDIT mode by pressing STOP/CP ***17***; *EDIT CANCELLED* then lights up.
- *EDIT NOT POSSIBLE* lights up if you try to record a CD containing more than 30 tracks.
- Should the CD or the programme be longer than the *total* recording time of the tape, play will stop after the last track that fits onto side B of the tape.
- Should the first track of the first CD or the programme be longer than one side of the tape (= the entered recording time divided by two), then *EDIT NOT POSSIBLE* will light up. You will now have to enter another recording time.
- The EDIT function will be cancelled if the CD changer (or the system) is set to STAND BY mode.

SYSTEM ASPECTS

ENHANCED SYSTEM INTELLIGENCE (ESI)

If the changer is connected via the ESI BUS sockets to the ESI BUS sockets of a HiFi system (e.g. the PHILIPS 900 series), the changer can be operated via the remote control of the system. In addition, the functions mentioned below are then accessible (if available in the system):

CD DUBBING (synchronized recording)

- Set the changer to the STOP mode.
- Press CD SYNC. (CD DUBBING) on the cassette deck.
- *SELECT DISC* appears on the display.
- Select the number of the required CD using DISC SELECT ***6*** or DISC ***6*** *(on the remote control* ***- CDC 926 only****)*.
  When recording a programme there is no need to enter the CD number(s).
- Peaksearch starts *(for the CD that is indicated on the display or for the programme)* but nothing is being recorded yet.
- After the peak level has been detected you can adjust the recording level.
- Press PLAY on the deck.
- Recording starts and after 6 seconds play starts again at the beginning of the CD which has just been playing.
- If you record a programme from different CDs the cassette deck will go into PAUSE mode when the CD changer selects a new CD in the CD compartment. As soon as playback of the new CD starts, the deck continues recording.
- At the end of side A of the tape, synchronized recording will stop, except when the ⊃ (auto reverse) mode has been selected on the cassette deck; the CD changer will then go into PAUSE mode. The tape travel direction for side B will be selected automatically and the current track will be recorded *again* on side B of the tape.
- After the last track synchronized recording will stop.

Synchronized recording in combination with EDIT:

- Set the changer to the EDIT mode.
- Select the required recording mode and recording time (see: 'EDIT' on page 12).
- Select the ⊃ (auto reverse) mode (if available) on the cassette deck
- Press CD SYNC. (CD DUBBING) on the deck.
- Peaksearch starts but nothing is being recorded yet.
- After the peak level has been detected you can adjust the recording level.
- Press PLAY on the deck.
- Recording starts and after 6 seconds play starts again at the beginning of the CD or the programme.
- If you record a programme from different CDs the cassette deck will go into PAUSE mode every time the CD changer selects a new CD in the CD compartment. As soon as playback of the new CD starts, the deck will continue the recording.
- After the last track that fits on side A of the tape, the CD changer will go into PAUSE mode. A blank section will be recorded until the end of side A.
- At the end of side A of the tape synchronized recording will stop, except when the ⊃ (auto reverse) mode has been selected on the cassette deck; the tape travel direction for side B will be selected automatically and synchronized recording will continue on side B of the tape.
- Synchronized recording will stop after the last track of the CD or the programme.

NOTE!

- As soon as you start recording, the other changer functions will temporarily be switched off to prevent the recording being interfered with; *CD DUBBING ACTIVE* lights up if you press one of the other buttons during play/recording.
- You can stop playback/recording by pressing STOP/CP ***13***.
- The CD DUBBING function will be cancelled if the CD changer (or the system) is set to STAND BY mode.

AUTOMATIC SOURCE SELECTION

If the AUTO SELECT button on the amplifier is pressed, the CD changer will automatically be activated as soon as you press QUICK PLAY ***23*** or PLAY/REPLAY ***14***.

AUTOMATIC STOP

If the AUTO SELECT button on the amplifier is pressed, the CD changer will automatically go into the PAUSE mode as soon as another source in the system is selected (except when CD DUBBING is active).

STAND BY

- With the STAND BY button on the remote control of the system you can set the changer to STAND BY mode.
  The changer will go to STAND BY mode automatically if the whole system is set to STAND BY mode.
- If the CD compartment was open, it will now close.
- Any programme present will be erased.
- Press any of the following buttons to cancel the STAND BY mode:
  DISC SELECT ***6***, PLAY/REPLAY ***14***, STOP/CP ***13***, SCAN ***18***, SHUFFLE ***16***, 1-0 ***2***, EDIT ***10***, OPEN/CLOSE ***7***, ⏮ ⏭ ***12*** or PRG ***3***.

TIMER

- Using the TIMER function you can have playback of a CD started at a particular time; for this refer to the operating instructions of the tuner (e.g FT930).
- *NO DISC* will light up if there is no CD in the CD compartment at the moment playback is supposed to start.

ADDITIONAL INFORMATION

MAINTENANCE

The CDs

- Never write on the printed side of a CD.
- Do not attach any stickers to the CD.
- Keep the shiny surface of the disc clean. Use a soft lint-free cloth and always wipe the disc in a straight line from centre to edge.
- Never use cleaning agents for conventional records.
- Detergents or abrasive cleaning agents should not be used either.

The changer

- A chamois leather slightly moistened with water is sufficient for cleaning the changer.
- Do not use cleaning agents containing alcohol, spirits, ammonia or abrasives.

RECYCLING

Please observe the local regulations regarding the disposal of packing materials, exhausted batteries and old equipment.

1. All redundant packaging material has been omitted. We have done our utmost to make the packaging easy separable into three mono-materials:
   - cardboard (box)
   - expandable polystyrene (buffer)
   - polyethylene (bags, protective foam sheet)
2. Your set consists of materials which can be recycled if disassembled by a specialized company.
3. Do not dispose of exhausted batteries with your household waste.
4. ***Note:*** Switching off the standby mode overnight will save energy.

TECHNICAL DATA

Typical Audio Performance

Frequency range: .....2 Hz - 20 kHz
Amplitude linearity: .....0.2 dB (20 Hz - 20 kHz)
Dynamic range: .....>100 dB (1 kHz)
Signal-to-noise ratio: .....>100 dB (1 kHz)
Channel separation: .....>100 dB (1 kHz)
Total harmonic distortion: .....- 90 dB (1 kHz)
D/A conversion: Bitstream conversion (256 x oversampling, 1 bit), in differential mode
Audio output level: .....2 V_{rms}
Impedance PHONES socket ***(CDC 926 only)***: 8 - 1000 ohms

Power supply

Mains voltage and frequency:
see the type plate on the rear of the changer
Power consumption: .....<10 W
Safety requirements: .....IEC 65

Cabinet

Material/finish: ...metal and polystyrene with decorative trim
Dimensions (w x h x d): .....435 x 106 x 380 mm
Weight: .....7 kg approx.

Subject to modification

This Compact Disc changer complies with radio interference requirements as laid down in EC regulations.

TROUBLE SHOOTING

If a fault occurs, run through the points listed below before taking your changer for repair.
If the fault remains, try to clear it by ***switching the changer off and on again***. If this also fails to help, consult your dealer.
Under no circumstances should you repair the changer yourself as this will invalidate the guarantee!

SYMPTOM	POSSIBLE CAUSE	REMEDY
– Playback does not start or interruption of playback.	– The current CD has been loaded upside down. – No CDs inserted. – The current CD is badly scratched or dirty. – Moisture condensation on the lens.	• Reload the CD, label side up. • Insert the CDs, label side up. • Clean the CD with a soft, lint-free cloth. • Leave the CD changer in a warm environment until the moisture evaporates.
– Sound skips (at the same part).	– The current CD is dirty.	• Clean the CD with a soft, lint-free cloth.
– The current CD skips tracks.	– The CD is damaged or dirty.	• Replace or clean the CD.
– Playback does not start from the first track (of the current CD).	– PRG (programme) or SHUFFLE activated.	• Switch off SHUFFLE or clear programme.
– No sound or bad sound.	– Loose or wrong connections. – Strong magnetic fields near the CD changer.	• Check connections. • Find another place for the unit or change connections.
– No sound or bad sound on headphones ***(CDC 926 only)***.	– Level control set to – position. – Headphones plug is dirty.	• Set level control. • Clean plug.
– Volume is too low.	– Sound level has been adjusted too low with the –VOLUME + keys on the remote control ***(CDC 926 only)***.	• Adjust sound level.
– Remote control does not function ***(CDC 926 only)***.	– Batteries are empty.	• Replace the batteries.
– Remote control commands are not properly received ***(CDC 926 only)***.	– The distance between remote control and CD changer is larger than 10 metres.	• Use remote control receiver EM 2200/2201. • Reduce the distance between remote control and CD changer.

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

ESD

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu aucune précaution n est prise à leur manipulation.
Lors de réparations, s assurer de bien être relié au même potentiel que la masse de l appareil et enfiler le bracelet serti d une résistance de securité.
Veiller à ce que les composants ainsi que les outils que l on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).
Unsorgfältige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern.
Sorgen sie dafur, dass Sie im Reparaturfall uber ein Pulsarmband mit Widerstand mit dem Massepotential des Gerates verbunden sind.
halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della piu grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

S Varning[1]

Osynlig laserstralning nar apparaten ar oppnad och sparrenar urkopplad.
Betrakta ej stralen.

SF Varo[1]

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina nakymattomalle laserisateilylle Ala katso sateeseen[1]

DK Advarsel[1]

Usynlig laserstraling ved abning. Undga unsaettelse for straling.

CAUTION
Invisible laser radiation when open.
Avoid exposure to beam.

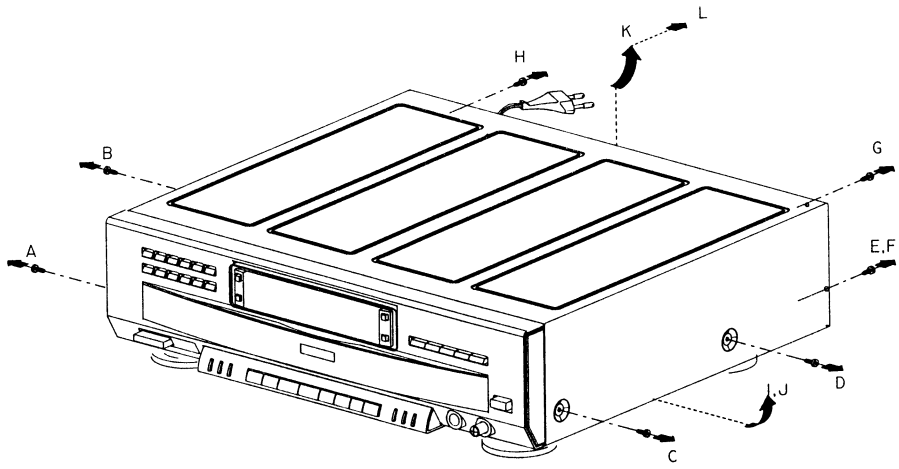
DANGER
Invisible laser radiation when open.
Avoid direct exposure to beam

CLASS 1
LASER PRODUCT

[1] "Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne."

5

DISMANTLING INSTRUCTIONS
DEMOUNTING OF COVER

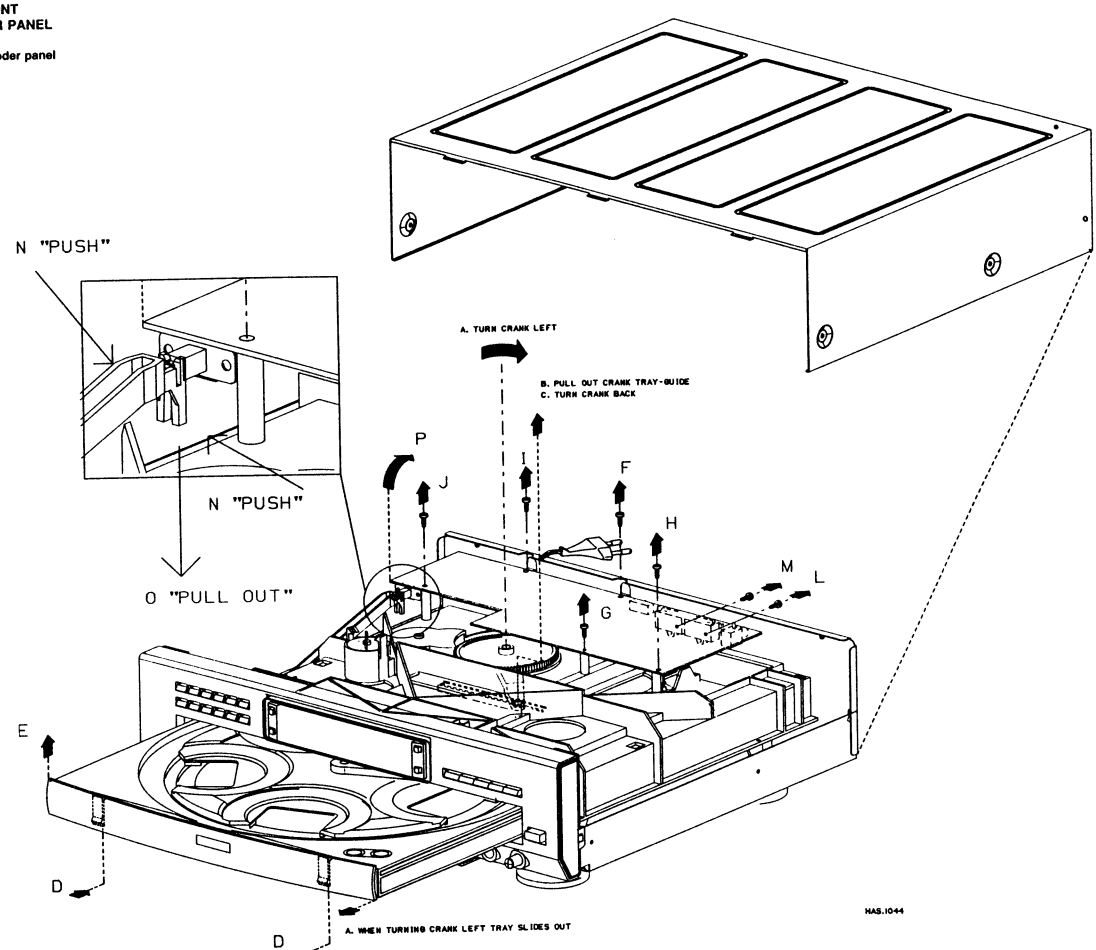


HAS.1043

6

PULL OUT OF TRAY
DEMOUNTING OF TRAYFRONT
DEMOUNTING OF DECODER PANEL

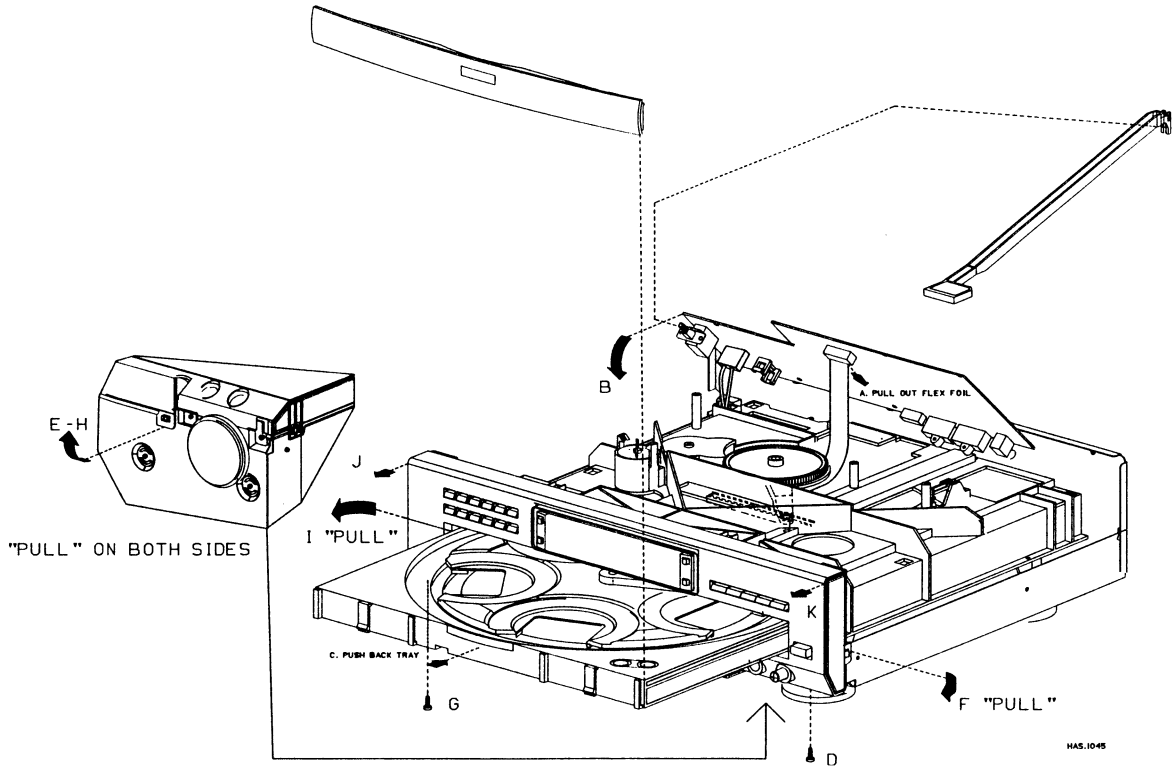
NOTE: Before demounting decoder panel remove backplate.



HAS.1044

7

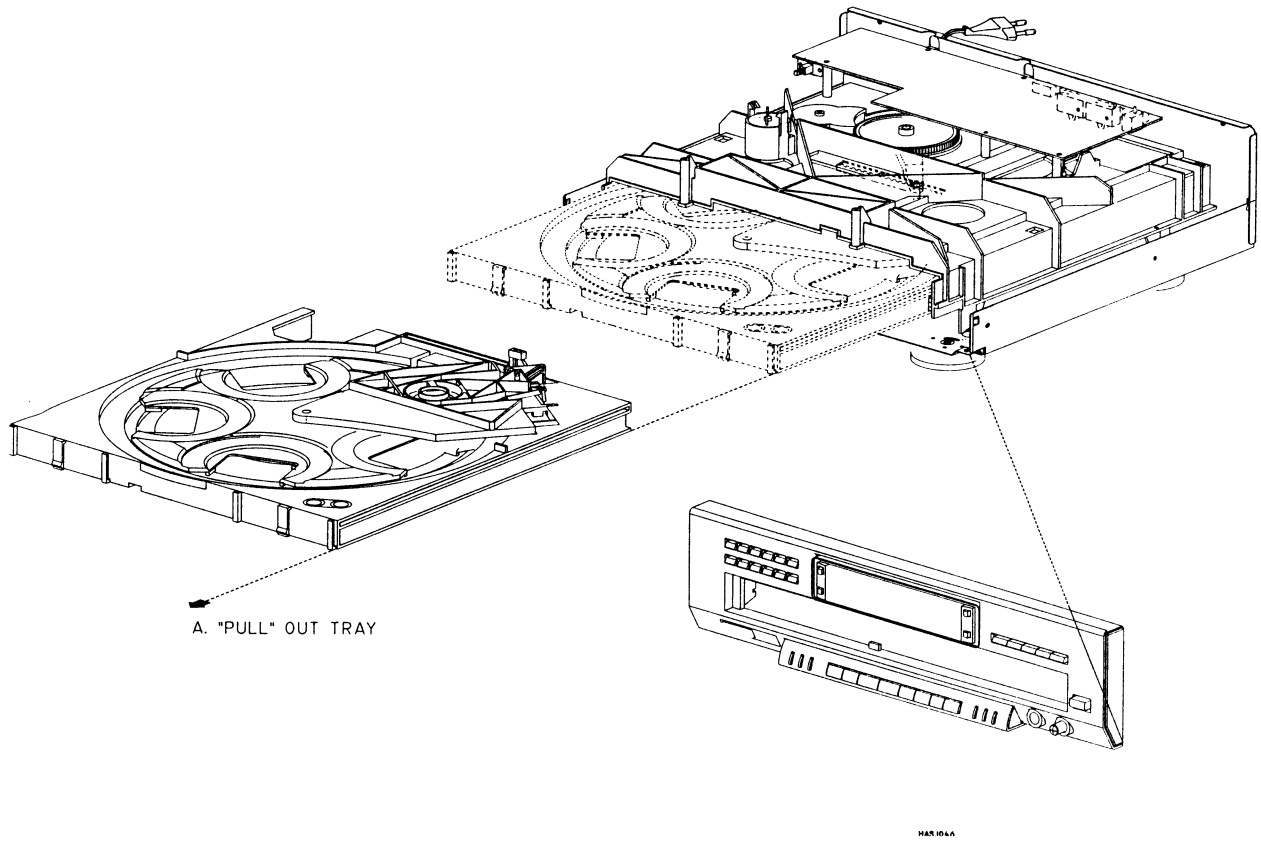
PULL OUT OF FLEXFOIL
DEMOUNTING OF FRONT



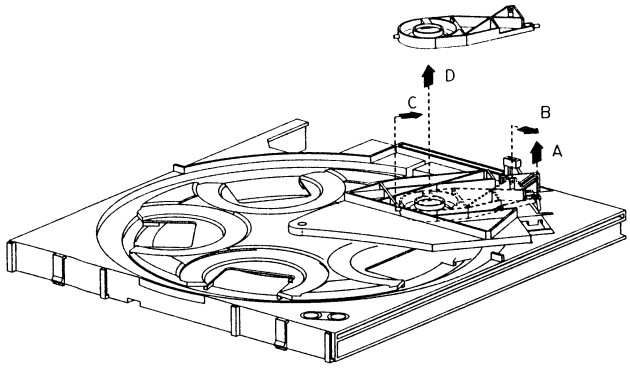
PCS60 167

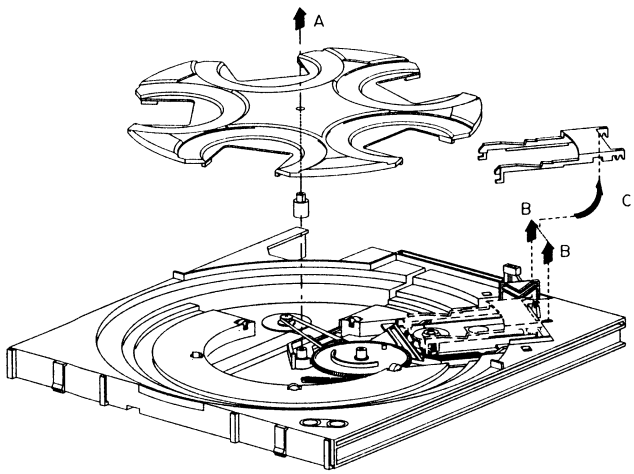
8

PULL OUT OF TRAY

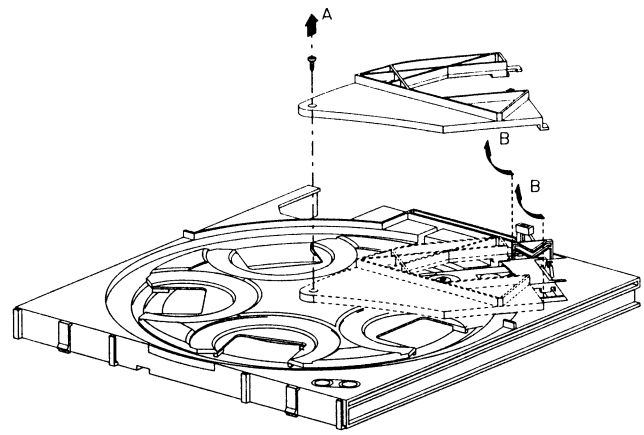


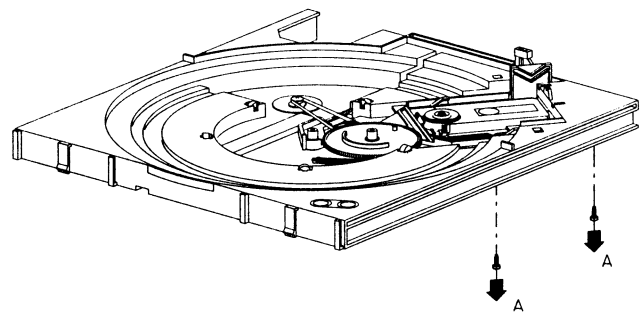
DEMOUNTING OF CARROUSEL
DEMOUNTING OF CDM





9





HAS.1047

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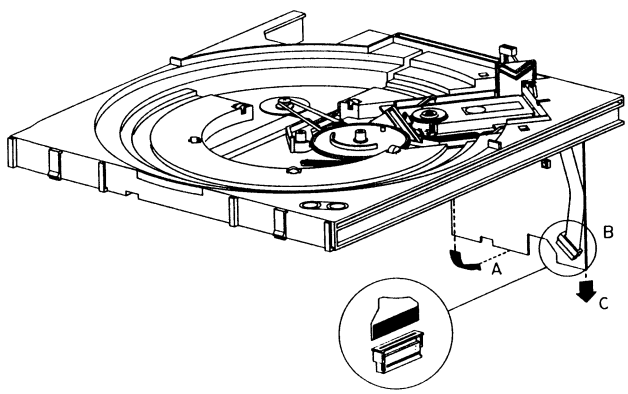
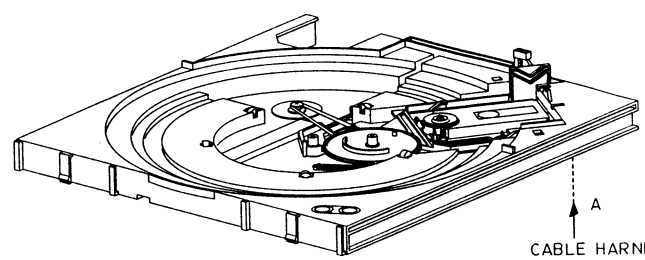
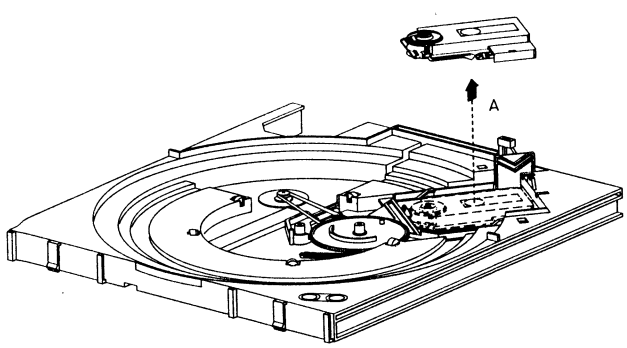
DEMOUNTING OF CDM



10





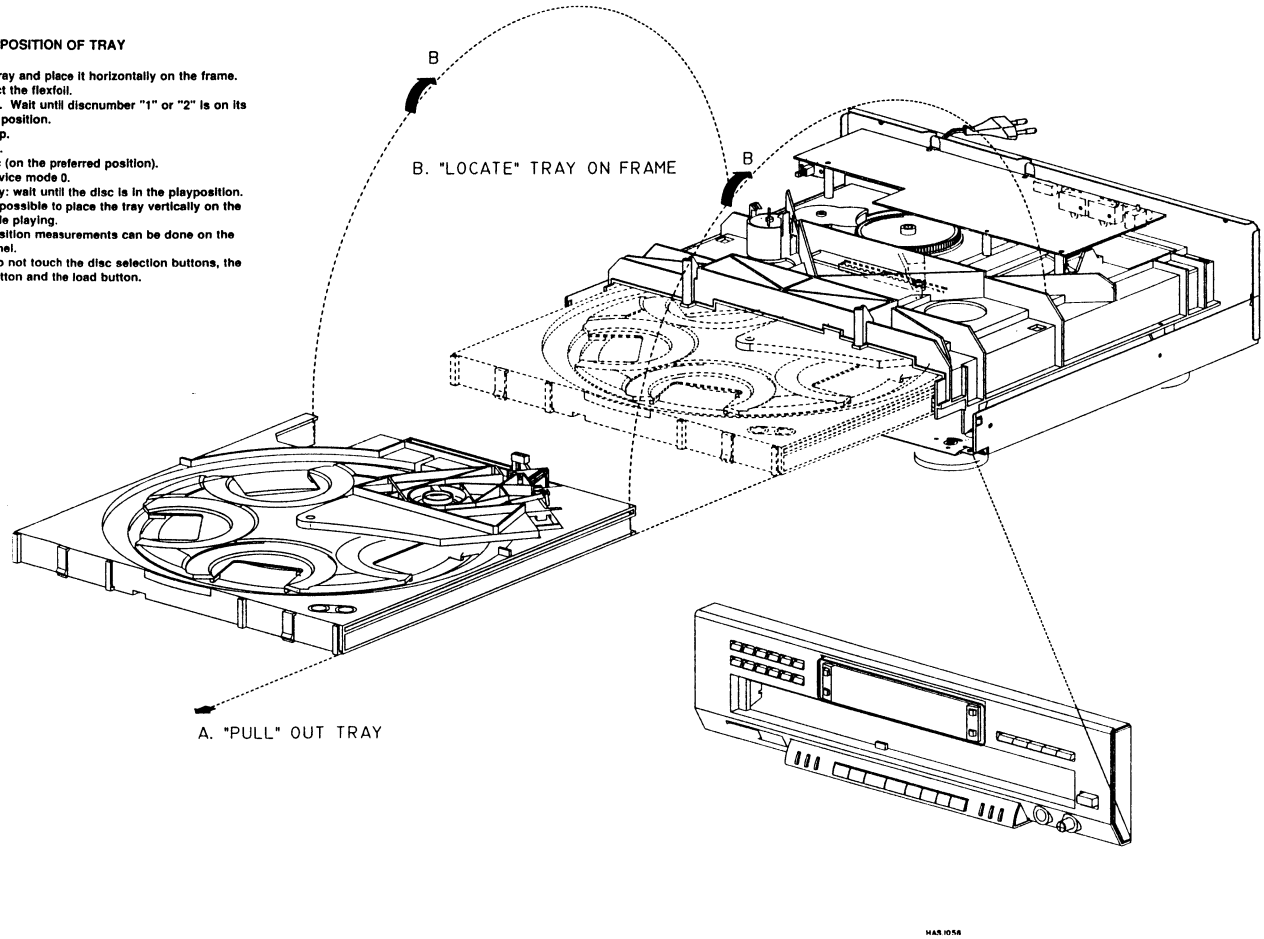
HAS.1048

12

SERVICING HINTS

SERVICE POSITION OF TRAY

- Pull out tray and place it horizontally on the frame.
- Reconnect the flexfoil.
- Power on. Wait until discnumber "1" or "2" is on its preferred position.
- Press stop.
- Power off.
- Load disc (on the preferred position).
- Go to service mode 0.
- Press play: wait until the disc is in the playposition.
- Now it is possible to place the tray vertically on the frame while playing.
- In this position measurements can be done on the Servo Panel.
  Please: do not touch the disc selection buttons, the shuffle button and the load button.

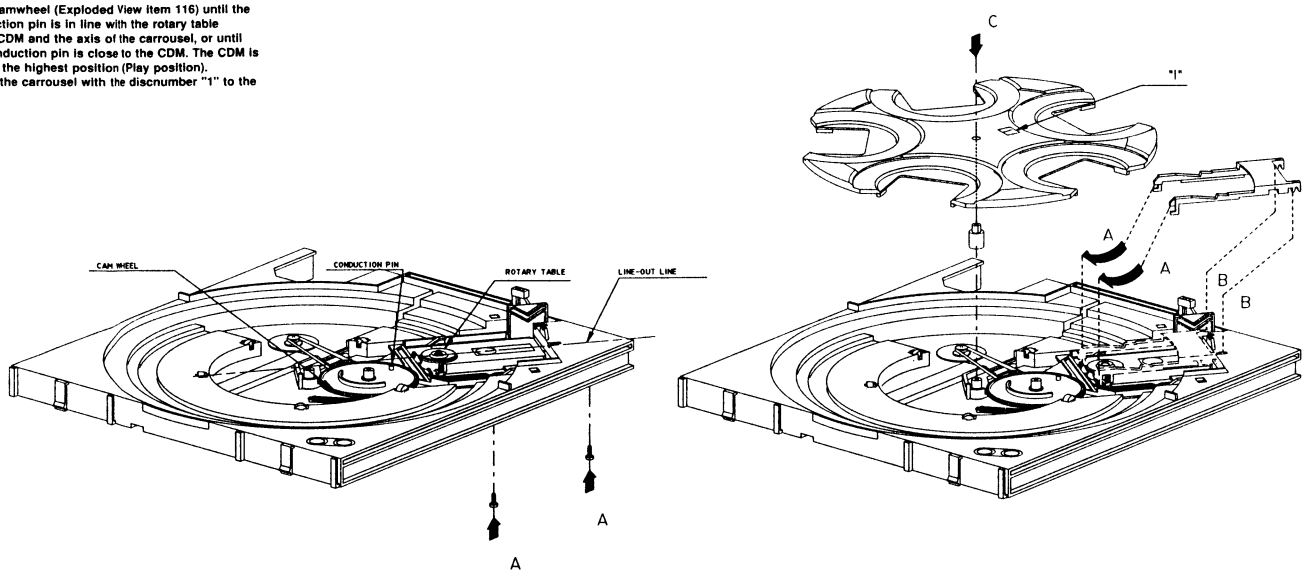


HAS.1058

13

ASSEMBLY OF THE CARROUSEL

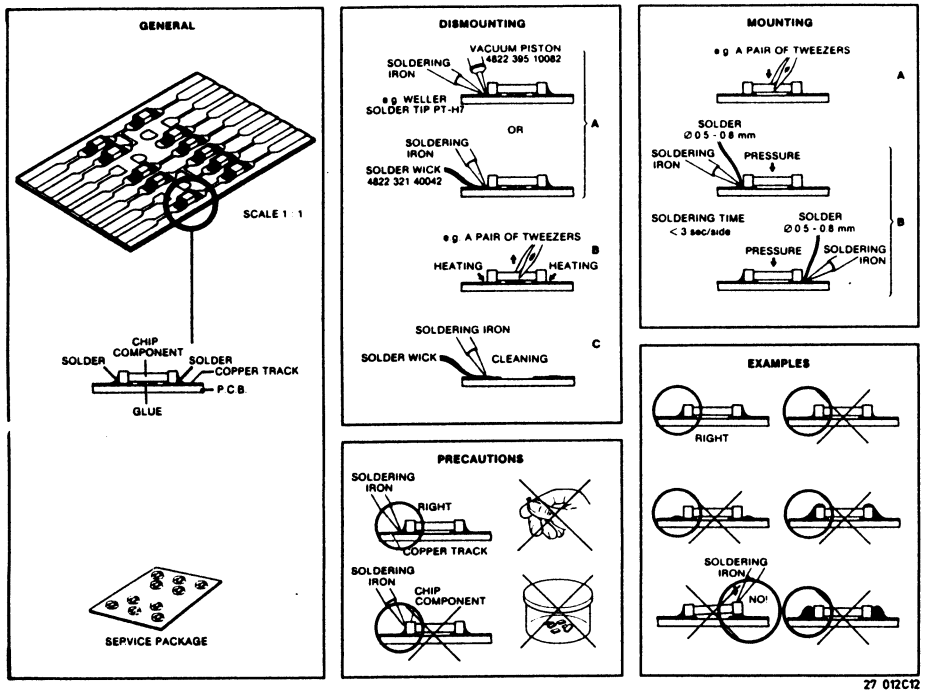
Turn camwheel (Exploded View item 116) until the conduction pin is in line with the rotary table of the CDM and the axis of the carrousel, or until the conduction pin is close to the CDM. The CDM is now in the highest position (Play position).
Mount the carrousel with the discnumber "1" to the CDM.



HAS.1059

SERVICING HINTS

In the set chip components have been applied. For disassembly and assembly of chip components see the figure below.



27 012C12

SERVICE TOOLS

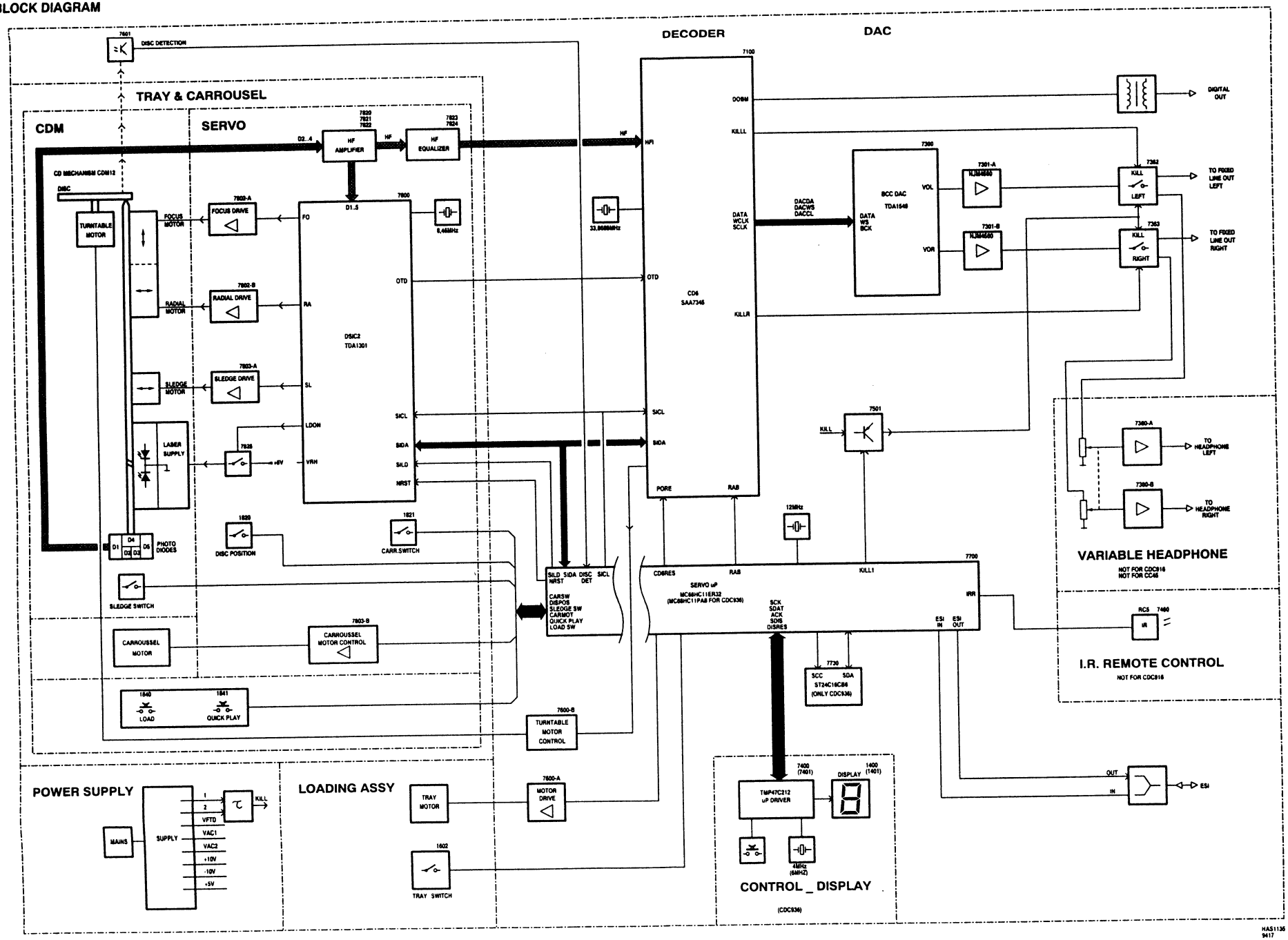
Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A	4822 397 30096
Disc (65 min 1kHz)without pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204

SERVICE HINT ABOUT PHOTOTRANSISTOR 7701

The disc detection does not work when the decoder panel is demounted and when external light falls on the phototransistor.
This can be prevented by covering the transistor with a piece of paper or a cloth.

14

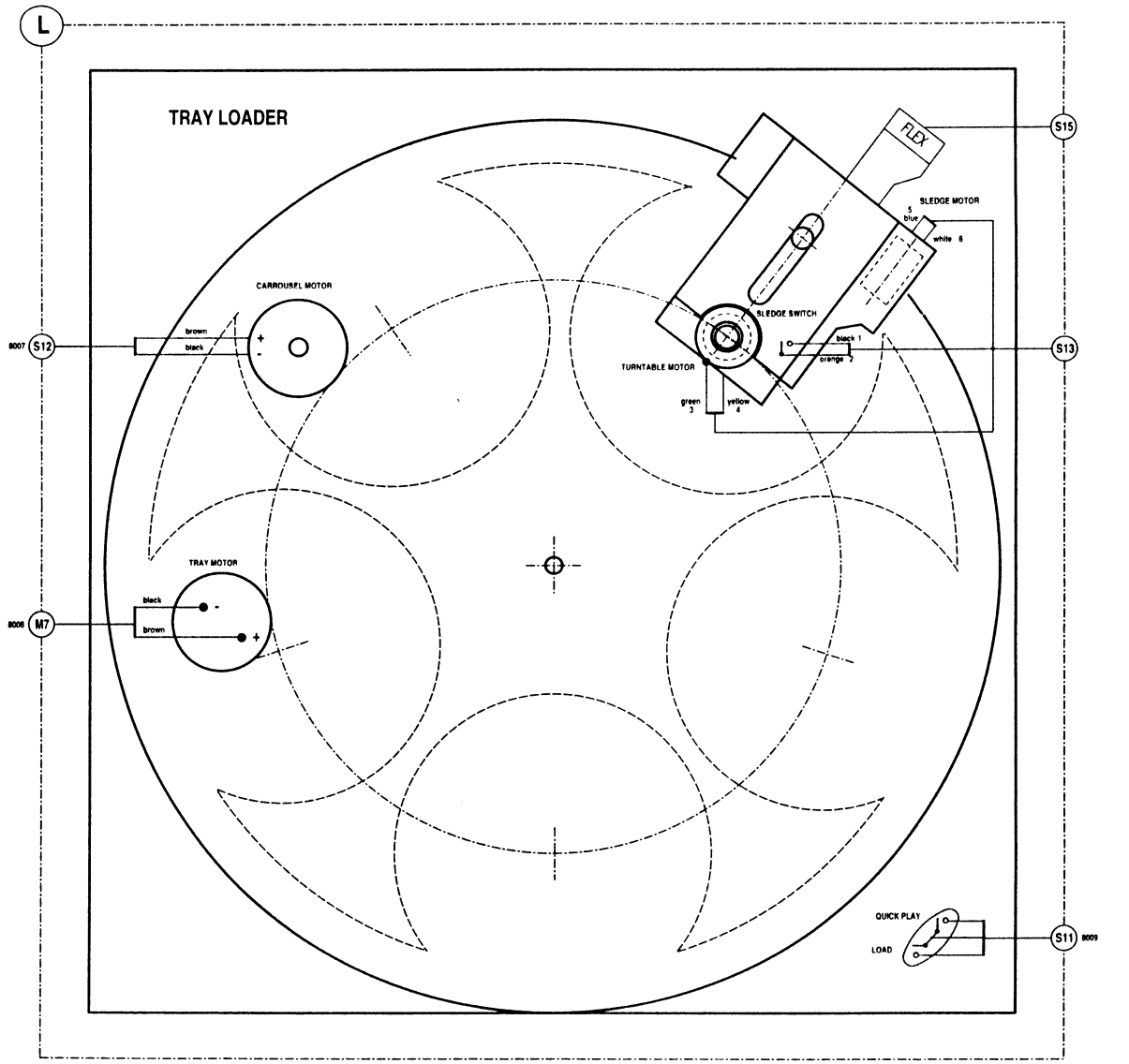
BLOCK DIAGRAM



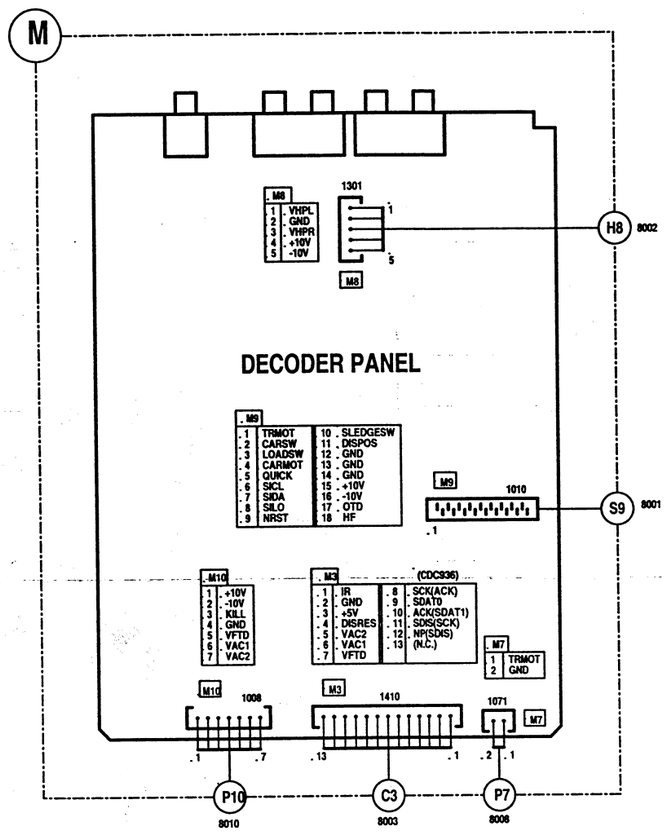
ABBREVIATIONS

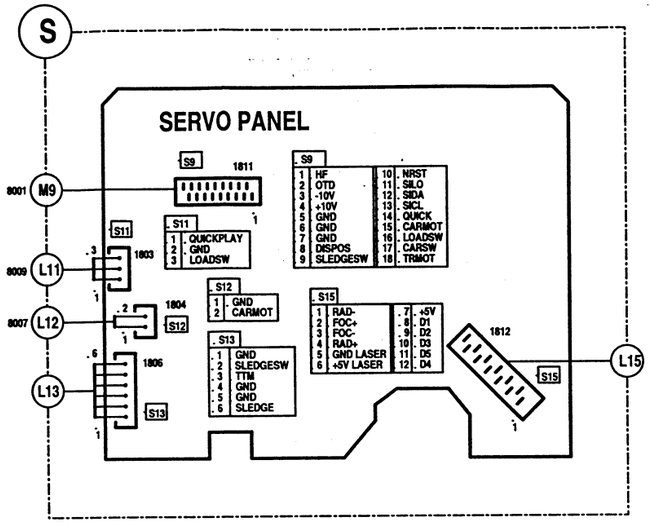
ACK	Acknowledge signal display(active LOW)
BCK	Bit clock input of BCC-DAC TDA1549
CARMOT	Carrousel motor
CARSW	Carrousel switch
CFLG	correction flag output
CL	interface clock input line
CL11	11.2896 MHz clock output
CL16	16.9344 MHz system clock output
CLA	4.2336 MHz microprocessor clock out put
CLO	Clock output
CRIN	crystal/resonator input
CROUT	crystal/resonator output
D1-D4	Central diode input of TDA1301
D1-D5	Photodiode signals from CDM12 mechanism
DA	interface data I/O line
DACCL	Bit clock output of CD6 decoder SAA7345
DACDA	Data output of CD6 decoder SAA7345
DACWS	Word select output of CD6 decoder SAA7345
DATA	serial data output/Data input of BCC-DAC TDA1549
DISPOS	Disc position
DISRES	RESET display
DOBM	Digital AUDIO output
ESI	Enhanced System Intelligence
FO	Focus actuator output
FOC+	+Connection of focus actuator
FOC-	Ground connection of focus actuator
HF	High-Frequency signal to decoder input
HFIN	comparator signal input
HFREF	comparator common-mode input
I.R.	Infra red receiver remote control
IREF	Reference current output
ISLICE	current feedback from data slicer
LDON	Laser drive on
LOAD SW	Load switch
MISC	general purpose DAC output
MOTO1,2	motor output 1,2
NRST	Reset input
OTD	Off track detector
PORE	power-on reset enable input(active low)
R1-R2	Satellite diode signal input
RA	Radial actuator output
RAB	interface R/W and acknowledge input
RAD+	+Connection of radial actuator
RAD-	Ground connection of radial actuator
SCK	CLOCK display
SCLK	serial bit clock output
SDAT	Serial data
SDAT0	DATAIN display
SDAT1	DATAOUT display
SDIS	Select display
SICL	Serial interface clock
SIDA	Serial interface data
SILD	Serial interface load
SL	Sledge output
SL OUT	+Connection of sledge motor
SLEDGE SW	Sledge switch of CDM12 mechanism
V1-5	Versatile input pins
VOL	Left channel output
VOR	Right channel output
WCLK	Word clock output
WS	Word select input of BCC-DAC TDA1549
XTLI	Oscillator input
XTLO	Oscillator output
XTLR	Oscillator reference

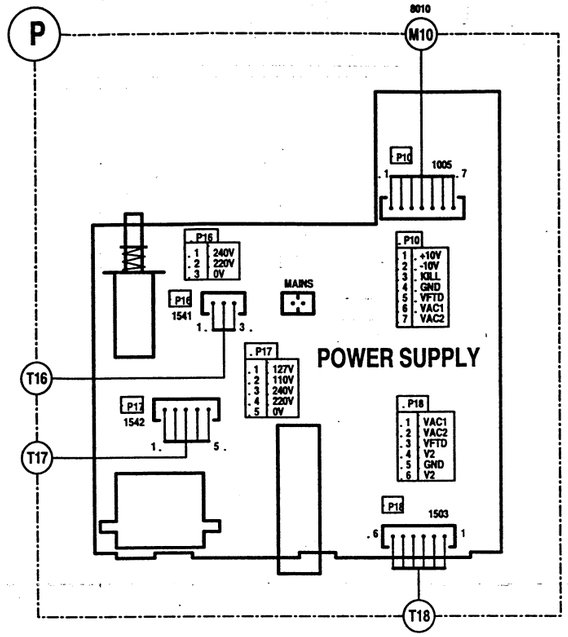
WIRING DIAGRAM

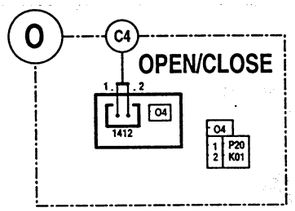


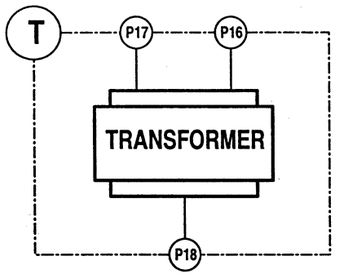
15

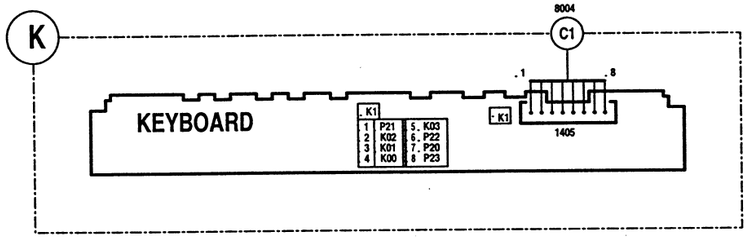


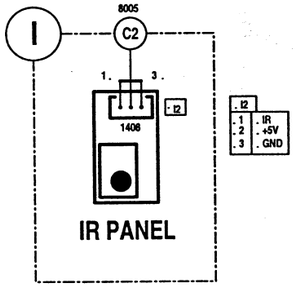


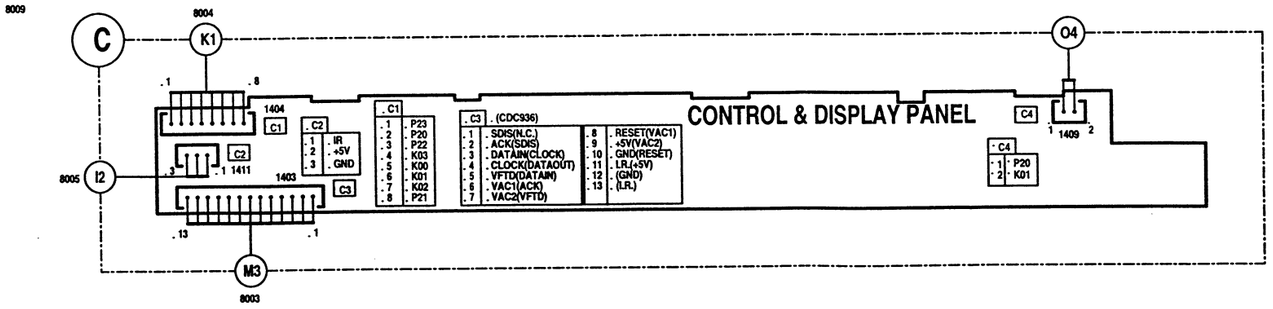


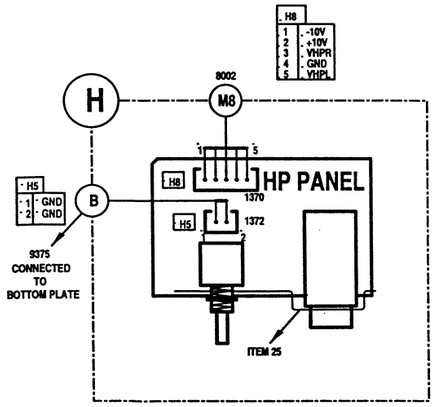








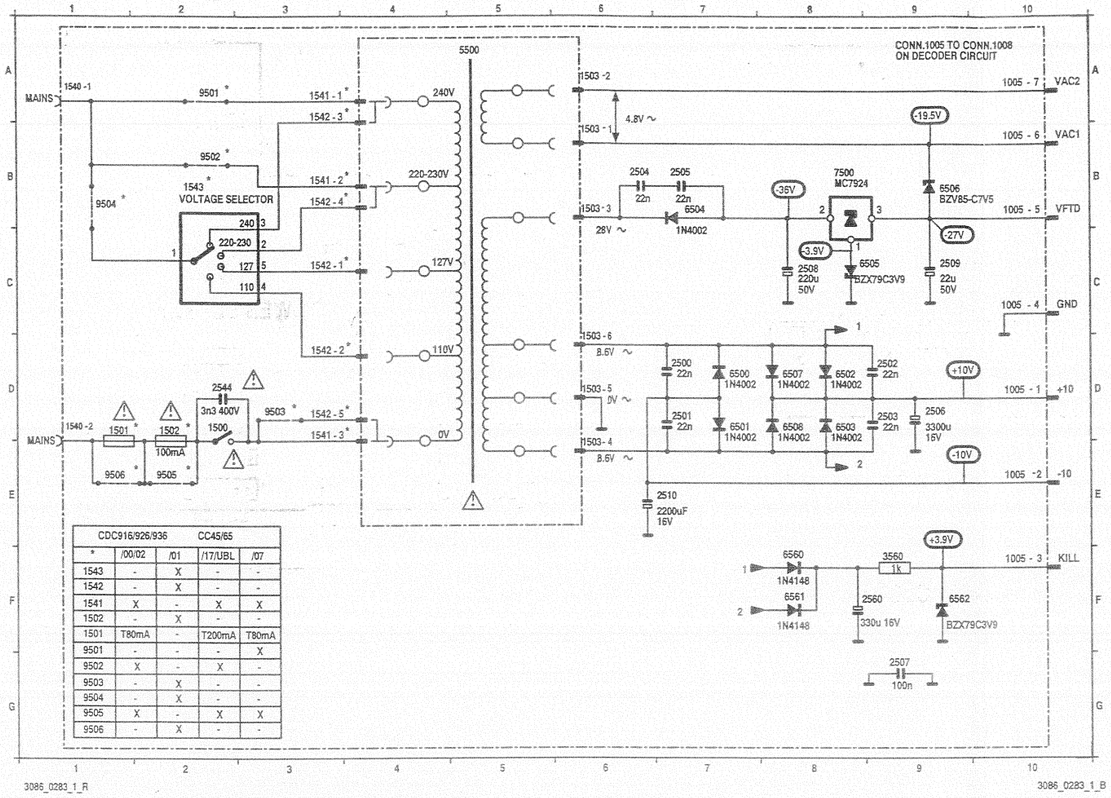




HAS1136
9417

POWER SUPPLY CIRCUIT DIAGRAM

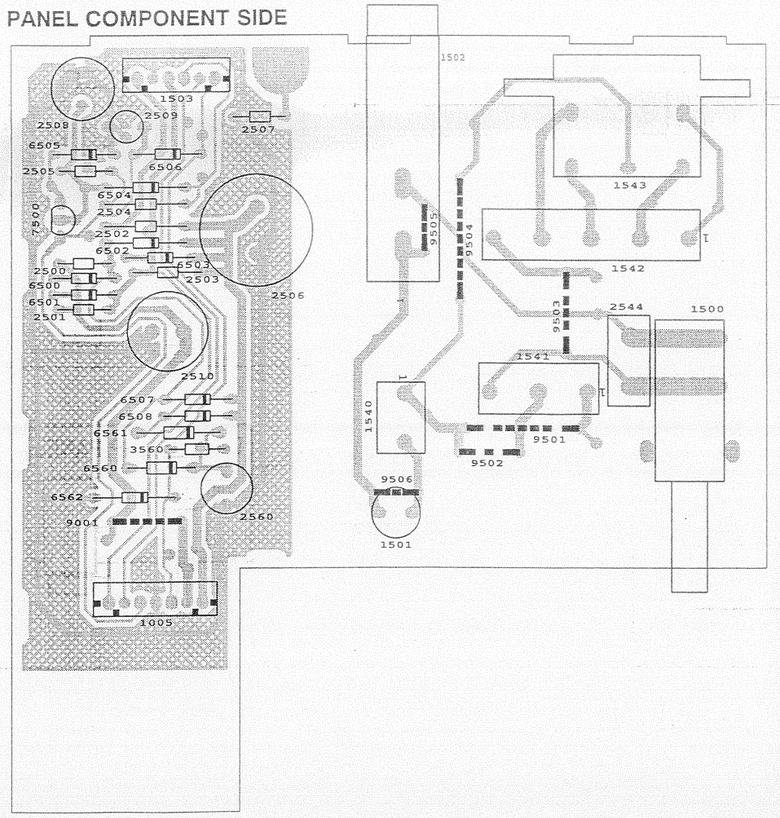
1005 D10 1005 B10 1503 B 6 1503 D 6 1541 D 3 1542 D 3 2503 D 9 2508 C 8 3560 F 9 6503 D 8 6508 D 8 9501 A 2 9506 E 1
1005 E10 1005 A10 1503 A 6 1540 A 1 1542 C 3 1543 B 2 2504 B 6 2509 C 9 3999 F 4 6504 B 7 6560 F 8 9502 B 2
1005 F10 1500 D 2 1503 B 6 1540 D 1 1542 D 3 2500 D 7 2506 B 7 2510 E 7 6500 D 7 6505 C 9 6561 F 8 9503 D 3
1005 C10 1501 D 1 1503 E 6 1541 A 3 1542 A 3 2501 D 7 2506 D 9 2544 D 2 6501 D 7 6506 B 9 6562 F 9 9504 B 1
1005 B10 1502 D 2 1503 D 6 1541 B 3 1542 B 3 2502 D 9 2507 G 9 2560 F 9 6502 D 8 6507 D 8 7500 B 8 9505 E 2



CDC916/926/936			CC45/65	
*	/00/02	/01	/17/UBL	/07
1543	-	X	-	-
1542	-	X	-	-
1541	X	-	X	X
1502	-	X	-	-
1501	T80mA	-	T200mA	T80mA
9501	-	-	-	X
9502	X	-	X	-
9503	-	X	-	-
9504	-	X	-	-
9505	X	-	X	X
9506	-	X	-	-

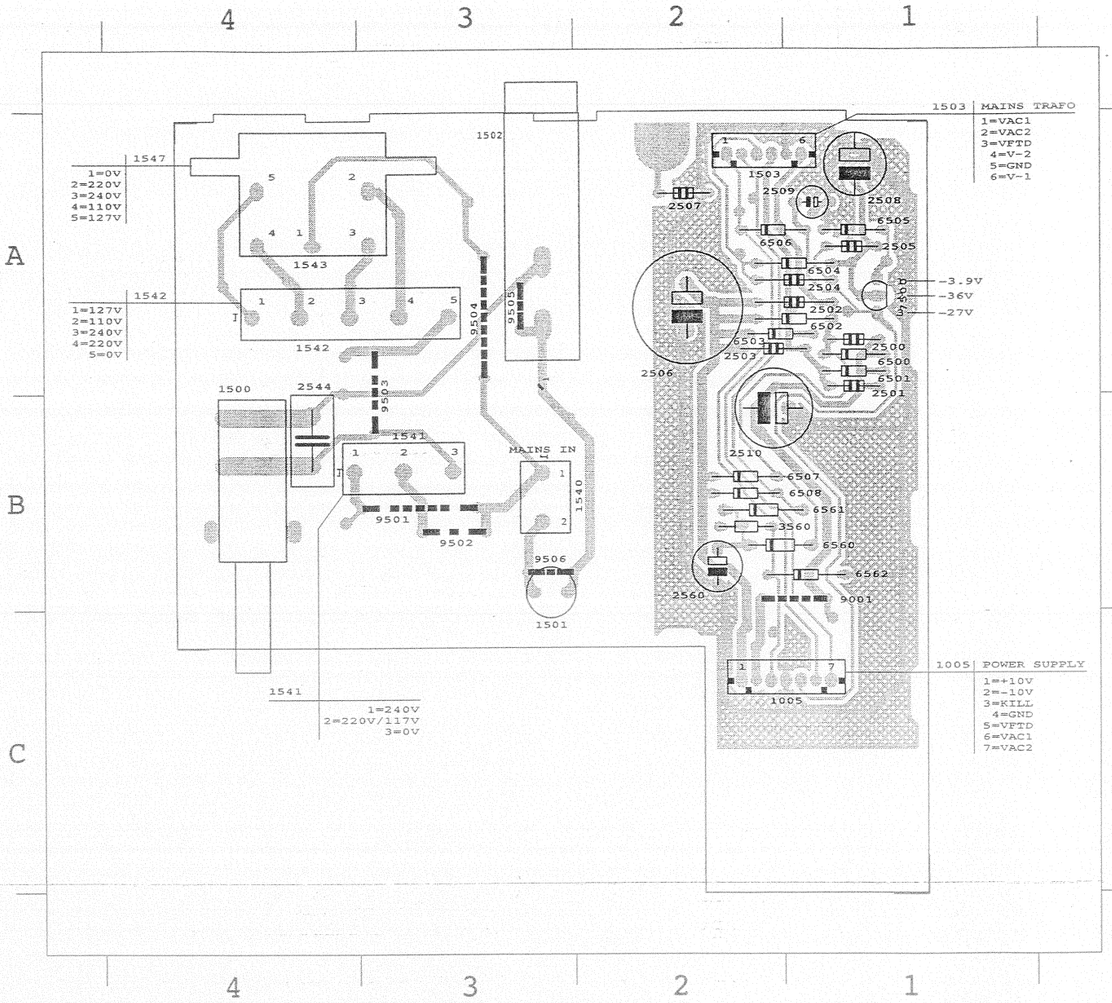
3086_0283_1_R 3086_0283_1_B

POWER SUPPLY PANEL COMPONENT SIDE



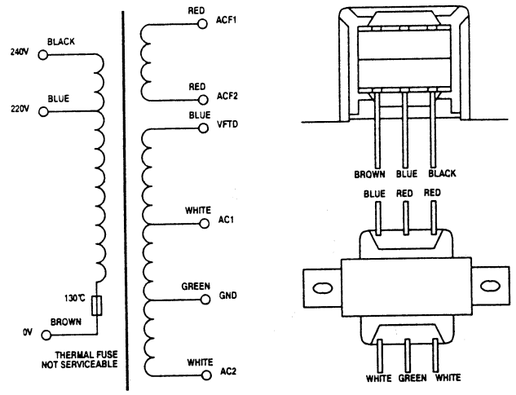
POWER SUPPLY PANEL SOLDER SIDE

9504 A 3 9001 B 1 6560 B 2 6505 A 1 6501 A 1 2544 B 4 2507 A 2 2503 A 2 1543 A 4 1503 A 2 1005 C 1
9505 A 3 9501 B 3 6561 B 2 6506 A 2 6502 A 1 2560 B 2 2508 A 1 2504 A 1 2500 A 1 1540 B 3 1500 B 4
9506 B 3 9502 B 3 6562 B 1 6507 B 2 6503 A 2 3560 B 2 2509 A 1 2505 A 1 2501 A 1 1541 B 3 1501 B 3
9503 A 3 7500 A 1 6508 B 2 6504 A 1 6500 A 1 2510 B 2 2506 A 2 2502 A 1 1542 A 4 1502 A 3

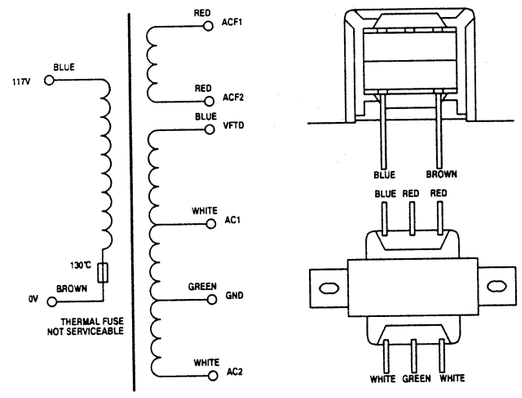


TRANSFORMER CONNECTIONS

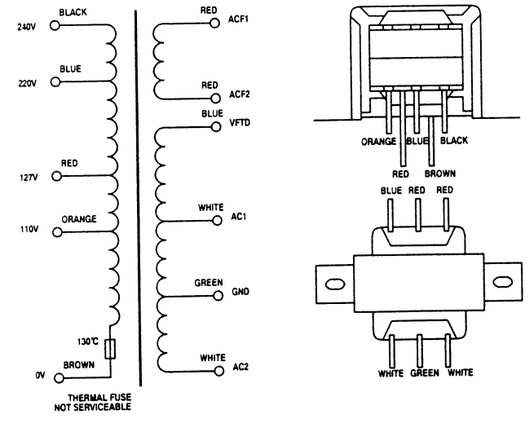
/00 /02 /07 VERSIONS



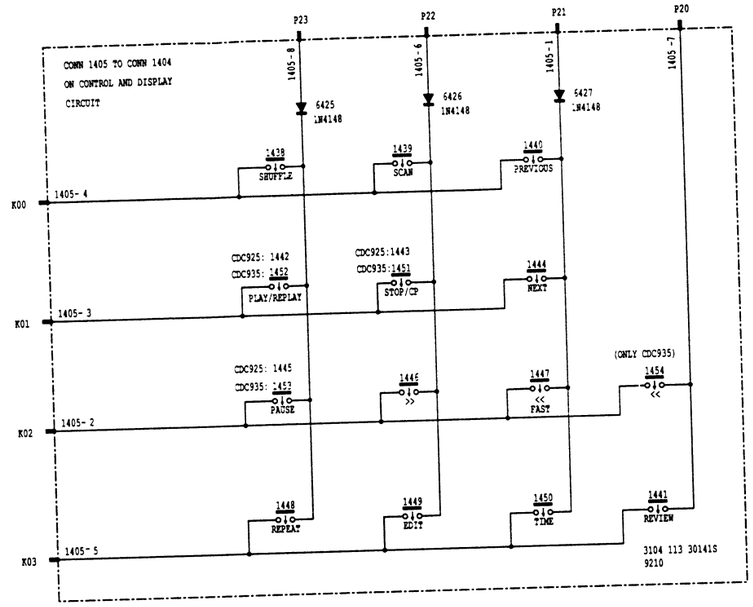
/17 VERSIONS



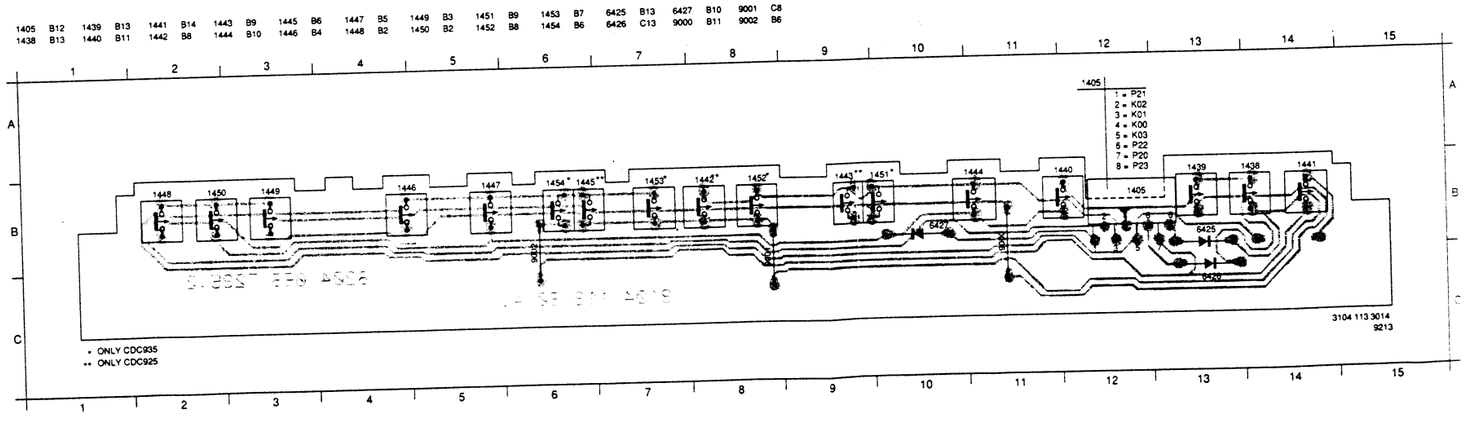
/01 VERSIONS



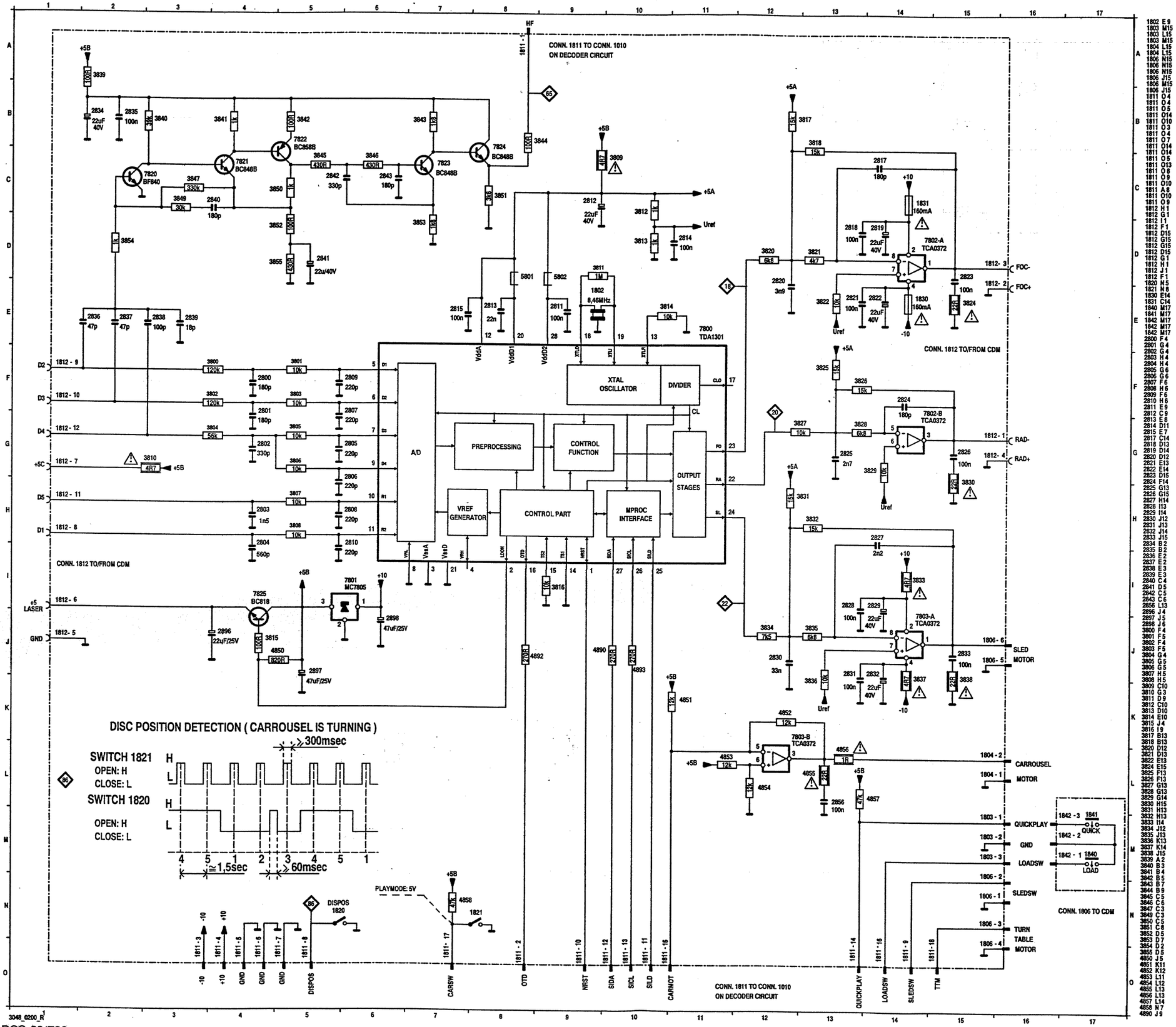
KEYBOARD CIRCUIT DIAGRAM



KEYBOARD PANEL



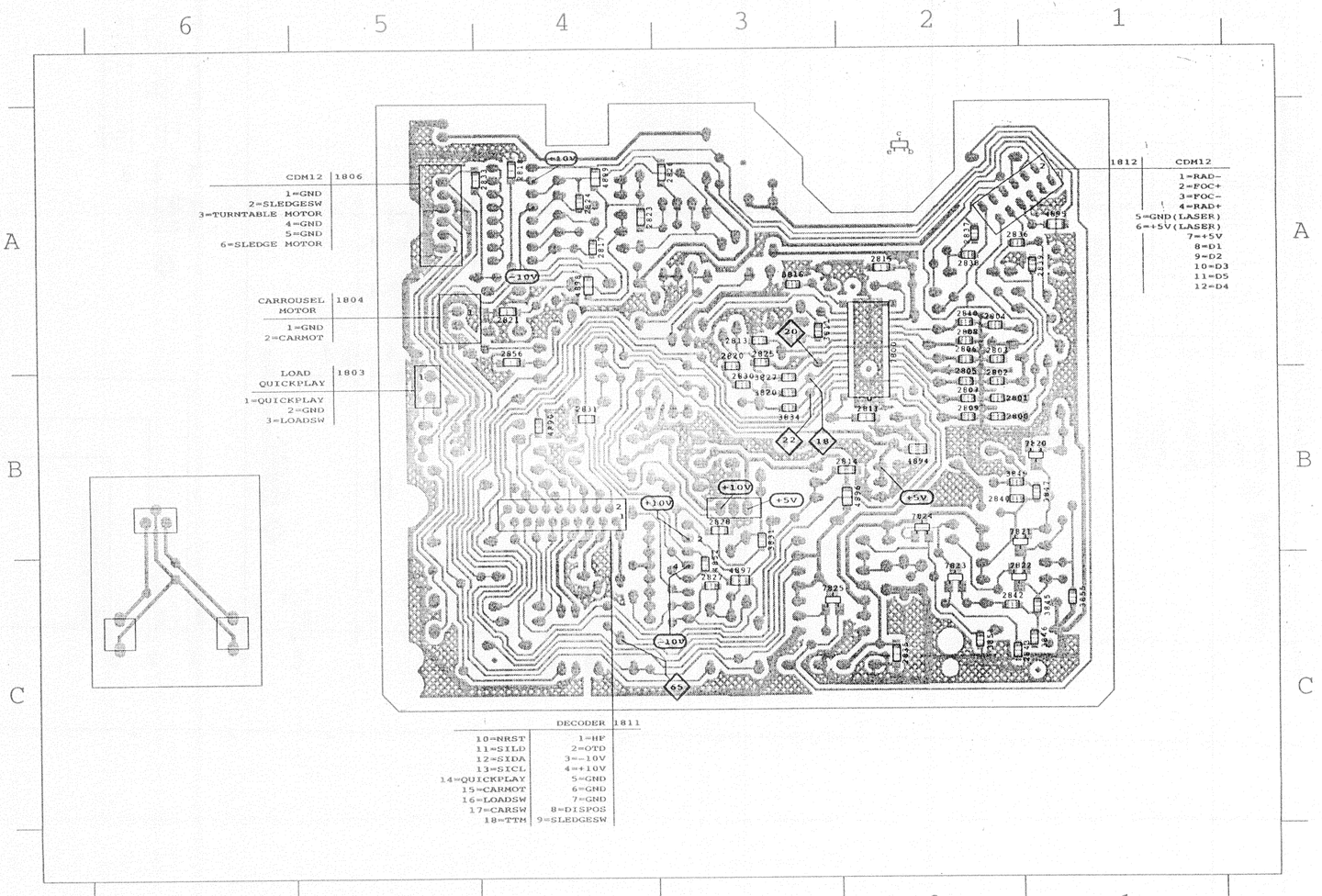
18


CONN. 1811 TO CONN. 1010 ON DECODER CIRCUIT
CONN. 1812 TO/FROM CDM
CONN. 1812 TO/FROM CDM
CONN. 1806 TO CDM
CONN. 1811 TO CONN. 1010 ON DECODER CIRCUIT
7800 TDA1301
A/D
PREPROCESSING
CONTROL FUNCTION
XTAL OSCILLATOR
DIVIDER
OUTPUT STAGES
VREF GENERATOR
CONTROL PART
MPROC INTERFACE
7801 MC7805
7802-A TCA0372
7802-B TCA0372
7803-A TCA0372
7803-B TCA0372
DISC POSITION DETECTION (CARROUSEL IS TURNING)
SWITCH 1821
OPEN: H
CLOSE: L
SWITCH 1820
OPEN: H
CLOSE: L
≥300msec
≅1,5sec
≥60msec
PLAYMODE: 5V
DISPOS 1820
1821
FOC-
FOC+
RAD-
RAD+
SLED MOTOR
CARROUSEL MOTOR
TURN TABLE MOTOR
QUICKPLAY
GND
LOADSW
SLEDSW
TTM
CARSW
OTD
NRST
SIDA
SICL
SILD
CARMOT
service mode 0
FM not moving
service mode 1
FM is moving
service mode 0
no tracking control
service mode 3
tracking control
service mode 0
sled not moving
sled out
sled in
eyepattern
2.5V
0,5us/DIV

19

SOLDER SIDE

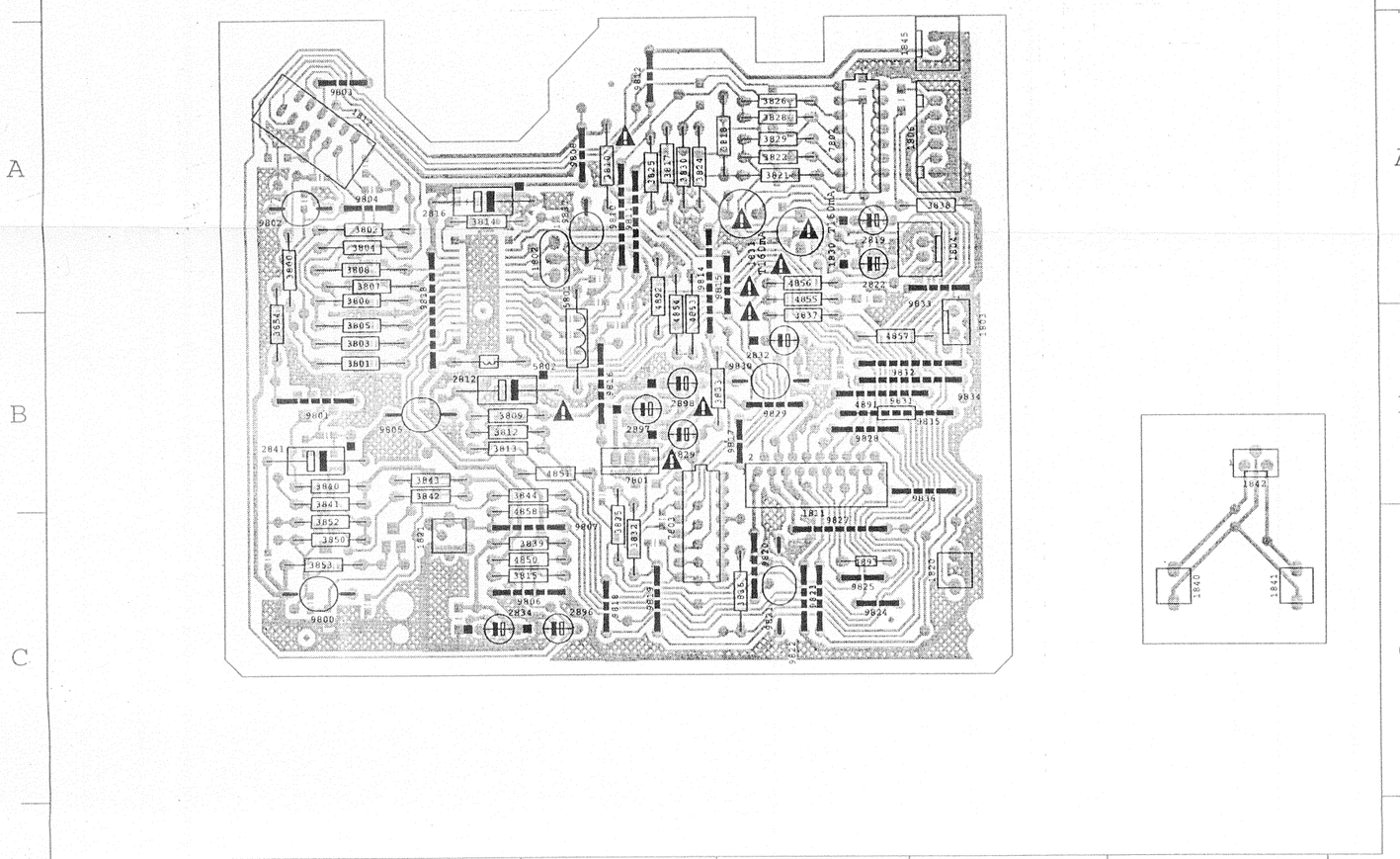
1840 C 6	9830 B 4	9819 C 3	9807 C 3	7823 C 2	4899 A 4	4858 C 3	3854 B 1	3843 B 2	3833 B 4	3822 A 4	3811 A 3	3801 B 2	2839 A 1	2829 B 3	2819 A 4	2809 B 2	1845 A 5	1802 A 3
1841 C 6	9831 B 4	9820 C 4	9808 A 3	7824 B 2	5801 B 3	4890 B 4	3855 C 1	3844 B 3	3834 B 3	3824 A 3	3812 B 2	3802 A 2	2840 B 2	2830 B 3	2820 A 3	2810 A 2	2800 B 2	1803 B 5
1842 B 6	9832 B 5	9821 C 4	9810 A 3	7825 C 3	5802 B 2	4891 B 4	3850 C 3	3845 C 1	3835 C 3	3825 A 3	3813 B 2	3803 B 2	2841 B 1	2831 B 4	2821 A 4	2811 B 2	2801 B 2	1804 A 5
	9833 A 5	9822 C 4	9811 A 3	9800 C 1	7800 A 2	4892 A 3	4851 B 3	3846 C 1	3836 C 4	3826 A 4	3814 A 2	3804 A 2	2842 C 2	2832 B 4	2822 A 4	2812 B 2	2802 B 2	1806 A 5
	9834 B 5	9823 C 4	9812 A 3	9801 B 1	7801 B 3	4893 C 4	4852 C 3	3847 B 1	3837 B 4	3827 B 3	3815 C 3	3805 B 2	2843 C 2	2833 A 4	2823 A 4	2813 A 3	2803 A 2	1811 B 4
	9835 B 4	9824 C 4	9814 A 3	9802 A 1	7802 A 4	4894 B 2	4853 B 3	3849 B 2	3838 A 5	3828 A 4	3816 A 3	3806 A 2	2856 A 4	2834 C 2	2824 A 4	2814 B 2	2804 A 2	1812 A 1
	9836 B 5	9825 C 4	9815 A 4	9803 A 2	7803 B 3	4895 A 1	4854 B 3	3850 C 2	3839 C 3	3829 A 4	3817 A 3	3807 A 2	2896 C 3	2835 C 2	2825 A 3	2815 A 2	2805 B 2	1820 C 5
	9837 A 3	9827 C 4	9816 B 3	9804 A 2	7820 B 1	4896 B 2	4855 A 4	3851 C 2	3840 B 2	3830 A 3	3818 A 4	3808 A 2	2897 B 3	2836 A 2	2826 A 3	2816 A 2	2806 A 2	1821 C 2
	9838 B 2	9828 B 4	9817 B 4	9805 B 2	7821 B 2	4897 C 3	4856 A 4	3852 C 2	3841 B 2	3831 B 3	3820 B 3	3809 B 2	2898 B 3	2837 A 2	2827 C 3	2817 A 4	2807 B 2	1830 A 4
	----	9829 B 4	9818 C 3	9806 C 3	7822 C 2	4898 A 4	4857 B 4	3853 C 2	3842 B 2	3832 C 3	3821 A 4	3810 A 3	3800 A 1	2838 A 2	2828 B 3	2818 A 4	2808 A 2	1831 A 4



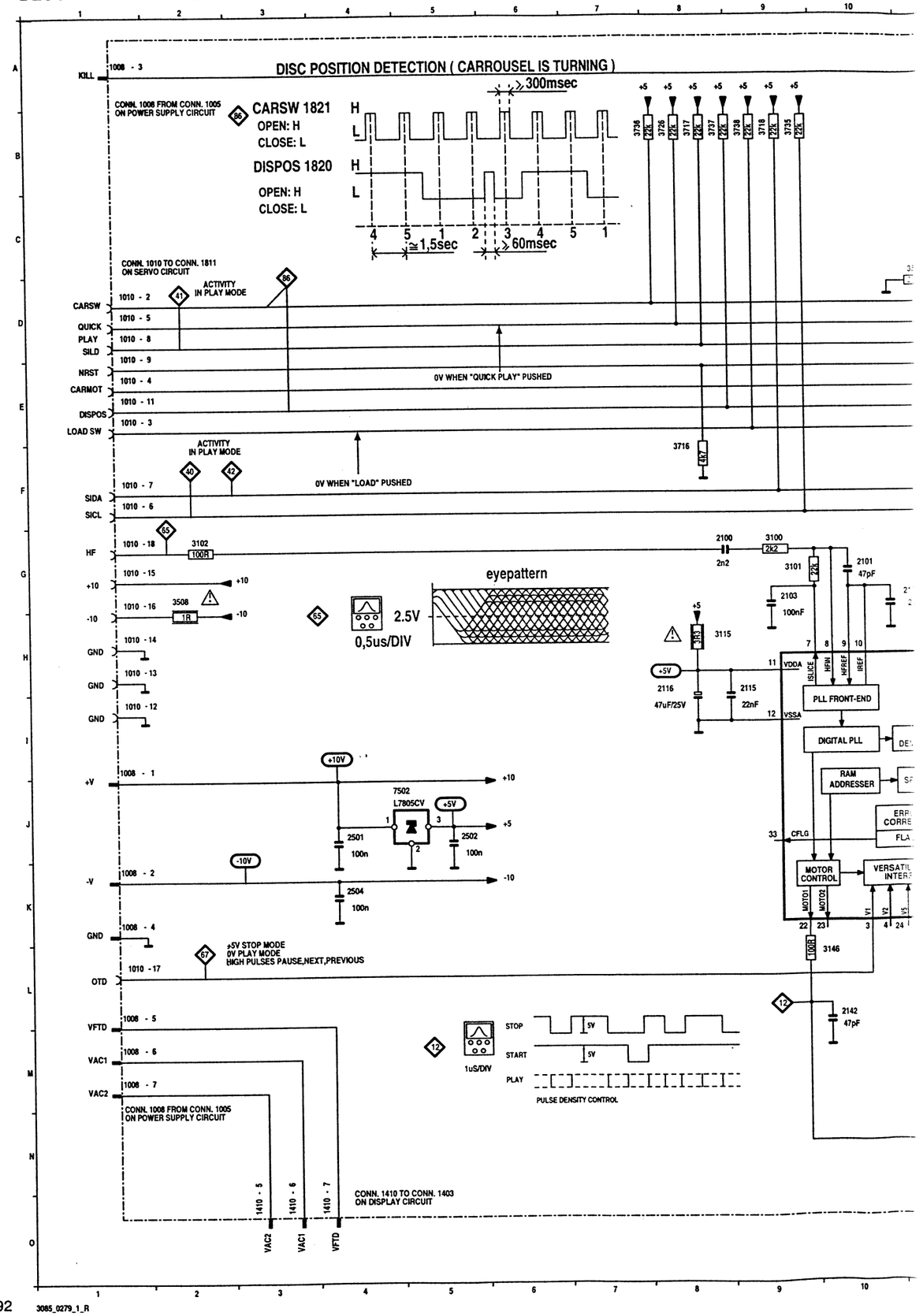
19

SERVO PANEL
COMPONENT SIDE

1802 A 3	1845 A 5	2809 B 2	2819 A 4	2829 B 3	2839 A 1	3801 B 2	3811 A 3	3822 A 4	3833 B 4	3843 B 2	3854 B 1	4858 C 3	4899 A 4	7823 C 2	9807 C 3	9819 C 3	9830 B 4	1840 C 6
1803 B 5	2800 B 2	2810 A 2	2820 A 3	2830 B 3	2840 B 2	3802 A 2	3812 B 2	3824 A 3	3834 B 3	3844 B 3	3855 C 1	4890 B 4	5801 B 3	7824 B 2	9808 A 3	9820 C 4	9831 B 4	1841 C 6
1804 A 5	2801 B 2	2811 B 2	2821 A 4	2831 B 4	2841 B 1	3803 B 2	3813 B 2	3825 A 3	3835 C 3	3845 C 1	4850 C 3	4891 B 4	5802 B 2	7825 C 3	9810 A 3	9821 C 4	9832 B 5	1842 B 6
1806 A 5	2802 B 2	2812 B 2	2822 A 4	2832 B 4	2842 C 2	3804 A 2	3814 A 2	3826 A 4	3836 C 4	3846 C 1	4851 B 3	4892 A 3	7800 A 2	9800 C 1	9811 A 3	9822 C 4	9833 A 5	
1811 B 4	2803 A 2	2813 A 3	2823 A 4	2833 A 4	2843 C 2	3805 B 2	3815 C 3	3827 B 3	3837 B 4	3847 B 1	4852 C 3	4893 C 4	7801 B 3	9801 B 1	9812 A 3	9823 C 4	9834 B 5	
1812 A 1	2804 A 2	2814 B 2	2824 A 4	2834 C 2	2856 A 4	3806 A 2	3816 A 3	3828 A 4	3838 A 5	3849 B 2	4853 B 3	4894 B 2	7802 A 4	9802 A 1	9814 A 3	9824 C 4	9835 B 4	
1820 C 5	2805 B 2	2815 A 2	2825 A 3	2835 C 2	2896 C 3	3807 A 2	3817 A 3	3829 A 4	3839 C 3	3850 C 2	4854 B 3	4895 A 1	7803 B 3	9803 A 2	9815 A 4	9825 C 4	9836 B 5	
1821 C 2	2806 A-2	2816 A 2	2826 A 3	2836 A 2	2897 B 3	3808 A 2	3818 A 4	3830 A 3	3840 B 2	3851 C 2	4855 A 4	4896 B 2	7820 B 1	9804 A 2	9816 B 3	9827 C 4	9837 A 3	
1830 A 4	2807 B 2	2817 A 4	2827 C 3	2837 A 2	2898 B 3	3809 B 2	3820 B 3	3831 B 3	3841 B 2	3852 C 2	4856 A 4	4897 C 3	7821 B 2	9805 B 2	9817 B 4	9828 B 4	9838 B 2	
1831 A 4	2808 A 2	2818 A 4	2828 B 3	2838 A 2	3800 A 1	3810 A 3	3821 A 4	3832 C 3	3842 B 2	3853 C 2	4857 B 4	4898 A 4	7822 C 2	9806 C 3	9818 C 3	9829 B 4	----	



DECODER CIRCUIT DIAGRAM



20

SEL IS TURNING)
>300msec
4 5 1
50msec
PUSHED
ttern
PULSE DENSITY CONTROL
5V
5V
1uS/DIV
0.5uS/DIV
CL
DA
WS
LSB
MSB
LSB
LEFT CHANNEL
RIGHT CHANNEL
24
7501 BC858
TO D6360, D6361 ON DAC CIRCUIT
KILL1
0V IN STOP PAUSE
-8V IN PLAY MODE
DISC DETECTION
7601 BPW85A
DISC POSITION DETECTION(CARROUSEL TURNING)
LOW PULSE WHEN NO DISC IS PRESENT
CD6RES
7700 MC68HC11ER32
I/O PORT
CPU
ROM
RAM
TIMING
7100 SAA7345GP/M5
PLL FRONT-END
TEST
MICROPROCESSOR INTERFACE
DIGITAL PLL
EFM DEMODULATOR
AUDIO PROCESSOR
RAM ADDRESSER
SRAM
PEAK DETECT
SERIAL DATA INTERFACE
ERROR CORRECTOR
FLAGS
Q-CHANNEL CRC CHECK
Q-CHANNEL REGISTER
MOTOR CONTROL
VERSATILE PINS INTERFACE
EBU INTERFACE
OSCILLATOR
TIMING
KILL
KILLL
KILLR
DACDA
DACWS
DACCL
TO DAC CIRCUIT
1602 TRAY SW
ESIOUT
ESIIN
0V TRAY CLOSED
5V TRAY OPEN
LOW WHEN READING TOC
LOW WHEN STOP
5V OPENING
0V CLOSING
2.5V REST
-8V OPENING
+8V CLOSING
0V REST
7600 A TCA0372DP2
7600 B TCA0372DP2
TRAY MOTOR
TURNTABLE MOTOR
CONN. 1410 TO CONN. 1403 ON DISPLAY CIRCUIT
GND
IR
NP
SDAT0
DISRES
SDIS
SCK
ACK
SLEDGE SW
NP
TO C2251 ON DAC CIRCUIT
DIGOUT
CONN. 1010 TO CONN. 1811 ON SERVO CIRCUIT
IDENTIFICATION RESISTOR FOR AUTOMATIC MEASURMENTS
12 MHz
33.8688MHz
3085_0279_1_B

DECODER & DAC PANEL COMPONENT SIDE

21

9056 F 3	3999 B 4	3143 E 3	1008 F 1
9057 A 1	4000 B 3	3144 E 3	1010 D 4
9058 B 2	4001 A 3	3145 E 4	1020 B 1
9060 C 1	4002 A 1	3146 B 1	1050 E 2
9061 E 2	4003 B 3	3147 E 3	1071 F 3
9130 E 1	4004 C 3	3252 A 1	1073 A 1
9131 E 1	4005 A 3	3300 C 3	1101 A 1
9134 D 2	4006 B 1	3301 B 2	1250 A 1
9135 C 1	4009 C 1	3302 B 3	1300 A 2
9136 D 3	4010 E 2	3303 B 3	1301 B 2
9137 D 3	4011 E 2	3304 B 2	1302 A 4
	4012 F 2	3305 B 3	1410 F 3
	4013 F 2	3306 A 2	1602 D 1
	4014 D 1	3307 A 2	1750 A 3
	4300 A 2	3308 A 2	1751 A 3
	4301 A 2	3309 A 2	1800 D 1
	4501 F 1	3310 B 2	1815 B 4
	4740 A 4	3330 C 2	2100 A 1
	5100 A 1	3331 B 2	2101 A 1
	5250 A 1	3332 A 2	2102 A 1
	5300 B 2	3333 B 3	2103 B 1
	5301 B 3	3334 B 3	2105 B 1
	5501 E 1	3360 B 2	2110 B 1
	5502 E 1	3361 B 1	2111 B 1
	6360 B 3	3362 B 3	2112 B 1
	6361 B 2	3363 A 2	2113 A 1
	6500 D 2	3364 A 2	2114 A 1
	6740 A 4	3365 A 2	2115 A 1
	7100 B 1	3366 A 2	2116 A 1
	7300 C 2	3367 B 2	2118 B 1
	7301 B 3	3368 B 3	2140 E 3
	7302 C 2	3369 A 1	2141 E 4
	7360 B 3	3376 A 2	2142 B 1
	7361 A 1	3377 A 2	2143 B 1
	7362 A 2	3500 D 2	2251 A 1
	7363 A 2	3501 D 2	2253 A 1
	7364 A 2	3502 D 2	2254 A 1
	7365 B 2	3503 D 1	2300 B 3
	7500 D 2	3504 D 1	2301 C 3
	7501 E 1	3505 E 1	2302 B 3
	7502 C 1	3506 E 1	2303 C 3
	7600 E 3	3507 E 1	2304 B 3
	7601 C 1	3508 C 3	2305 B 3
	7700 D 1	3600 D 3	2306 A 3
	7730 D 2	3601 E 3	2307 A 3
	7740 A 3	3602 E 3	2308 A 2
	7741 A 3	3603 E 4	2309 A 2
	7742 A 4	3604 E 2	2310 B 3
	9000 A 1	3605 D 3	2311 B 3
	9001 B 2	3606 E 4	2312 B 3
	9002 B 2	3607 E 3	2313 C 2
	9003 B 2	3608 E 4	2314 B 3
	9004 B 2	3609 E 1	2315 B 2
	9005 B 1	3700 E 2	2316 C 3
	9006 C 3	3701 D 1	2317 A 2
	9007 E 1	3702 E 1	2330 B 2
	9008 A 3	3703 E 1	2331 C 2
	9009 A 3	3704 D 2	2332 C 2
	9010 A 1	3705 C 1	2333 C 2
	9011 B 3	3706 D 1	2334 C 2
	9012 B 3	3707 E 2	2335 B 2
	9013 A 2	3708 E 2	2336 B 3
	9014 A 2	3709 D 1	2337 B 3
	9015 E 1	3710 E 1	2338 A 3
	9016 E 1	3711 E 1	2339 C 2
	9017 B 1	3712 E 1	2500 C 1
	9018 C 1	3713 E 1	2501 C 1
	9019 D 1	3714 E 1	2502 C 1
	9020 E 1	3715 B 1	2503 E 1
	9021 C 3	3716 D 2	2504 E 1
	9022 C 3	3717 D 1	2505 D 3
	9023 C 3	3718 D 1	2600 E 4
	9024 E 1	3719 D 1	2601 E 4
	9025 D 1	3720 D 1	2602 E 3
	9026 E 2	3721 D 1	2700 D 2
	9027 D 2	3722 D 2	2701 D 1
	9028 E 2	3723 D 1	2703 D 2
	9029 D 4	3724 E 2	2704 F 3
	9030 D 4	3725 D 1	2705 F 2
	9031 D 3	3726 D 2	2706 F 2
	9032 D 3	3727 E 2	2707 F 3
	9033 D 3	3728 B 4	2708 E 3
	9034 D 3	3729 E 1	2709 E 3
	9035 D 2	3730 B 4	2710 E 3
	9036 E 2	3732 B 4	2730 D 2
	9037 D 3	3733 E 1	2740 A 3
	9038 D 2	3734 B 4	2741 A 3
	9039 D 2	3735 D 1	2742 A 3
	9040 E 3	3736 E 1	3100 A 1
	9041 E 4	3737 D 1	3101 A 1
	9042 C 1	3738 E 1	3102 C 3
	9043 C 1	3739 E 2	3107 B 1
	9044 C 4	3740 E 2	3108 B 1
	9045 C 1	3743 A 3	3109 B 1
	9046 C 1	3744 A 3	3110 B 1
	9047 D 2	3745 A 3	3111 B 1
	9048 D 2	3746 A 3	3113 A 1
	9049 C 2	3747 A 3	3114 A 1
	9050 D 1	3748 A 3	3115 A 1
	9051 D 1	3749 A 4	3116 B 1
	9052 D 1	3750 A 4	3117 B 1
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	9054 C 2	3752 E 1	3141 E 4
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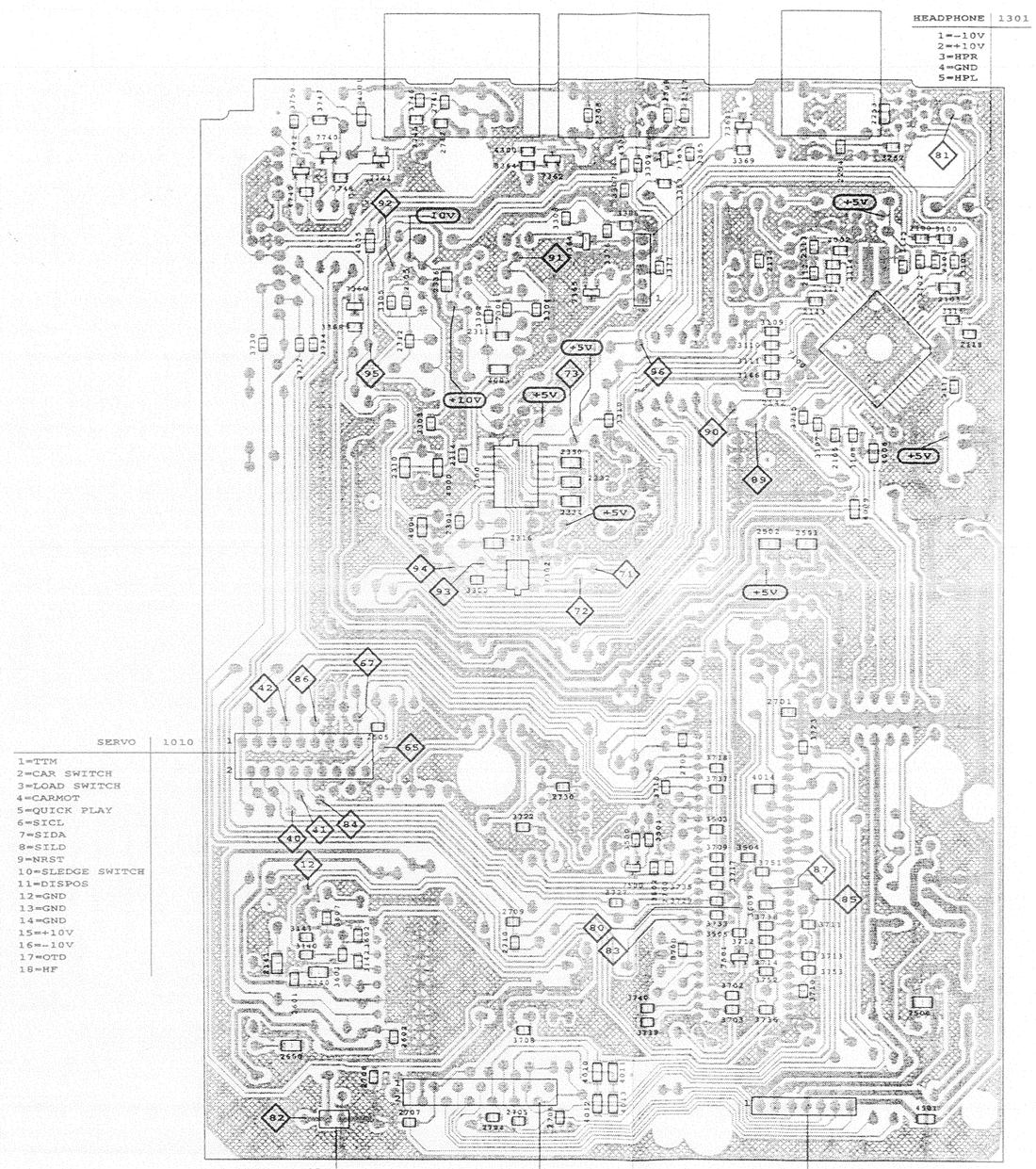

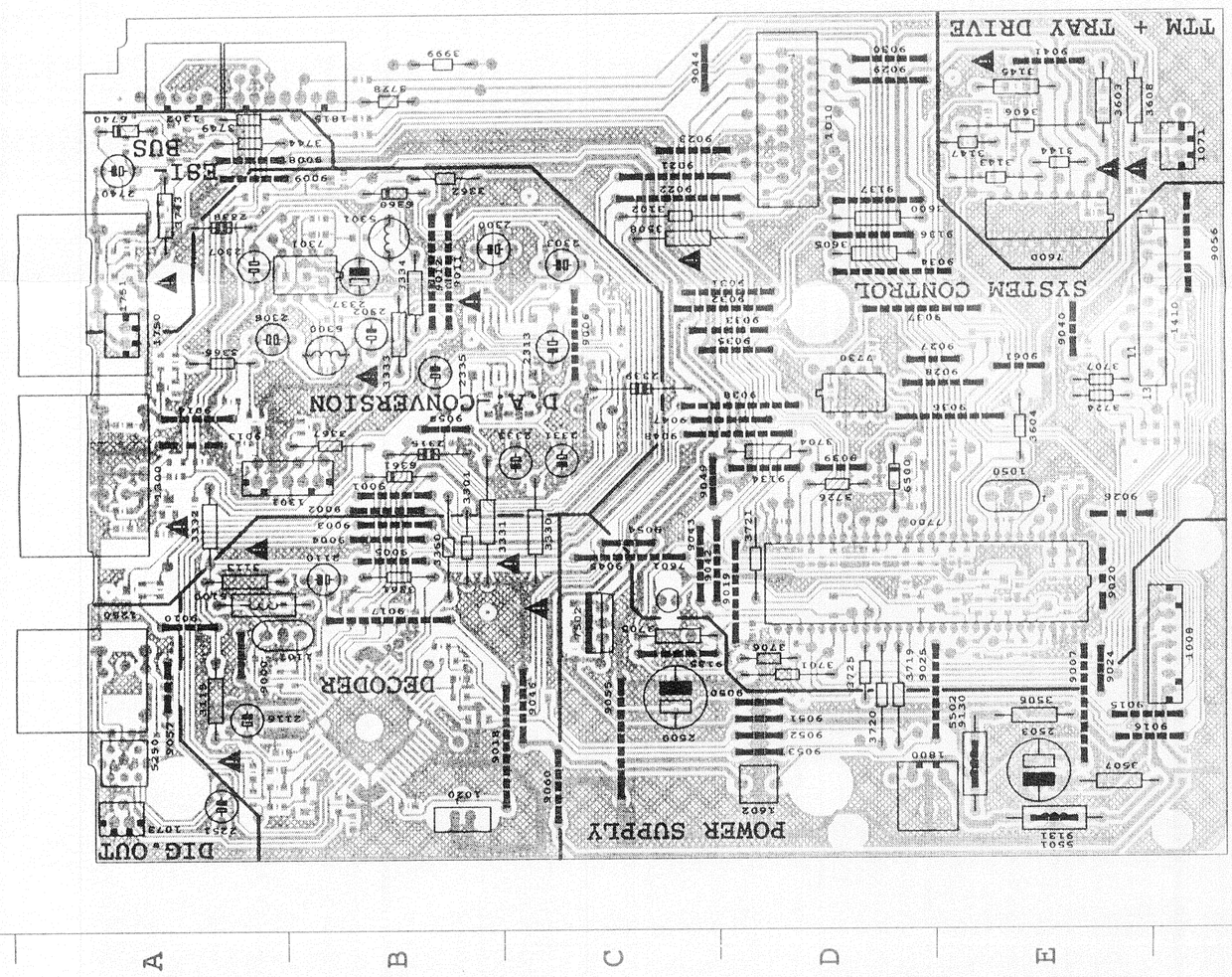

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1010 D 4 3144 E 3 4000 B 3 9057 A 1
1020 B 1 3145 E 4 4001 A 3 9058 B 2
1050 E 2 3146 B 1 4002 A 1 9060 C 1
1071 F 3 3147 E 3 4003 B 3 9061 E 2
1073 A 1 3252 A 1 4004 C 3 9130 E 1
1101 A 1 3300 C 3 4005 A 3 9131 E 1
1250 A 1 3301 B 2 4006 B 1 9134 D 2
1300 A 2 3302 B 3 4009 C 1 9135 C 1
1301 B 2 3303 B 3 4010 E 2 9136 D 3
1302 A 4 3304 B 2 4011 E 2 9137 D 3
1410 F 3 3305 B 3 4012 F 2
1602 D 1 3306 A 2 4013 F 2
1750 A 3 3307 A 2 4014 D 1
1751 A 3 3308 A 2 4300 A 2
1800 D 1 3309 A 2 4301 A 2
1815 B 4 3310 B 2 4501 F 1
2100 A 1 3330 C 2 4740 A 4
2101 A 1 3331 B 2 5100 A 1
2102 A 1 3332 A 2 5250 A 1
2103 B 1 3333 B 3 5300 B 2
2105 B 1 3334 B 3 5301 B 3
2110 B 1 3360 B 2 5501 E 1
2111 B 1 3361 B 1 5502 E 1
2112 B 1 3362 B 3 6360 B 3
2113 A 1 3363 A 2 6361 B 2
2114 A 1 3364 A 2 6500 D 2
2115 A 1 3365 A 2 6740 A 4
2116 A 1 3366 A 2 7100 B 1
2118 B 1 3367 B 2 7300 C 2
2140 E 3 3368 B 3 7301 B 3
2141 E 4 3369 A 1 7302 C 2
2142 B 1 3376 A 2 7360 B 3
2143 B 1 3377 A 2 7361 A 1
2251 A 1 3500 D 2 7362 A 2
2253 A 1 3501 D 2 7363 A 2
2254 A 1 3502 D 2 7364 A 2
2300 B 3 3503 D 1 7365 B 2
2301 C 3 3504 D 1 7500 D 2
2302 B 3 3505 E 1 7501 E 1
2303 C 3 3506 E 1 7502 C 1
2304 B 3 3507 E 1 7600 E 3
2305 B 3 3508 C 3 7601 C 1
2306 A 3 3600 D 3 7700 D 1
2307 A 3 3601 E 3 7730 D 2
2308 A 2 3602 E 3 7740 A 3
2309 A 2 3603 E 4 7741 A 3
2310 B 3 3604 E 2 7742 A 4
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2312 B 3 3606 E 4 9001 B 2
2313 C 2 3607 E 3 9002 B 2
2314 B 3 3608 E 4 9003 B 2
2315 B 2 3609 E 1 9004 B 2
2316 C 3 3700 E 2 9005 B 1
2317 A 2 3701 D 1 9006 C 3
2330 B 2 3702 E 1 9007 E 1
2331 C 2 3703 E 1 9008 A 3
2332 C 2 3704 D 2 9009 A 3
2333 C 2 3705 C 1 9010 A 1
2334 C 2 3706 D 1 9011 B 3
2335 B 2 3707 E 2 9012 B 3
2336 B 3 3708 E 2 9013 A 2
2337 B 3 3709 D 1 9014 A 2
2338 A 3 3710 E 1 9015 E 1
2339 C 2 3711 E 1 9016 E 1
2500 C 1 3712 E 1 9017 B 1
2501 C 1 3713 E 1 9018 C 1
2502 C 1 3714 E 1 9019 D 1
2503 E 1 3715 B 1 9020 E 1
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2505 D 3 3717 D 1 9022 C 3
2600 E 4 3718 D 1 9023 C 3
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3107 B 1 3739 E 2 9043 C 1
3108 B 1 3740 E 2 9044 C 4
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3113 A 1 3746 A 3 9048 D 2
3114 A 1 3747 A 3 9049 C 2
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3116 B 1 3749 A 4 9051 D 1
3117 B 1 3750 A 4 9052 D 1
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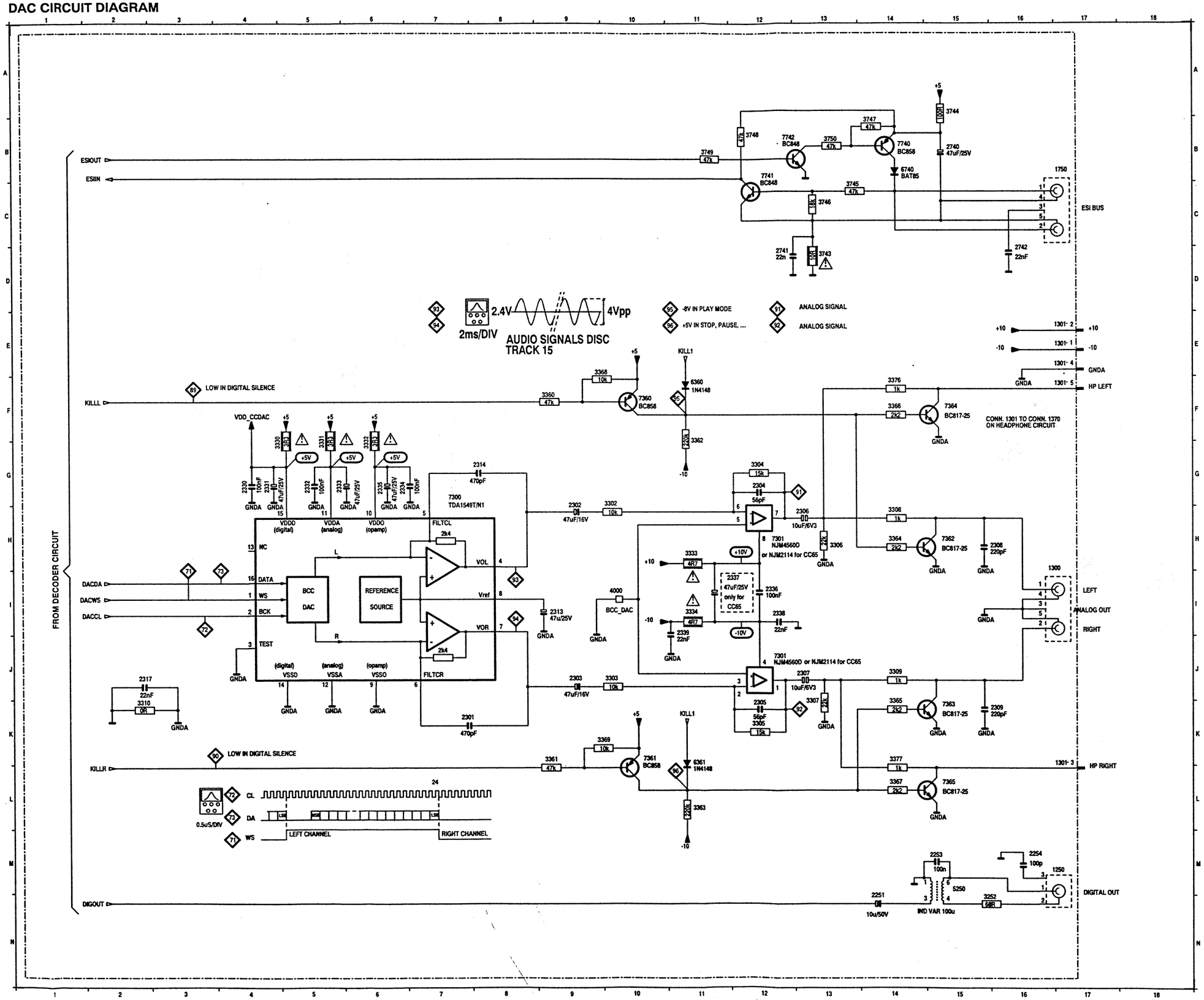
3142 E 3 3753 E 1 9055 C 1

23

DAC CIRCUIT DIAGRAM

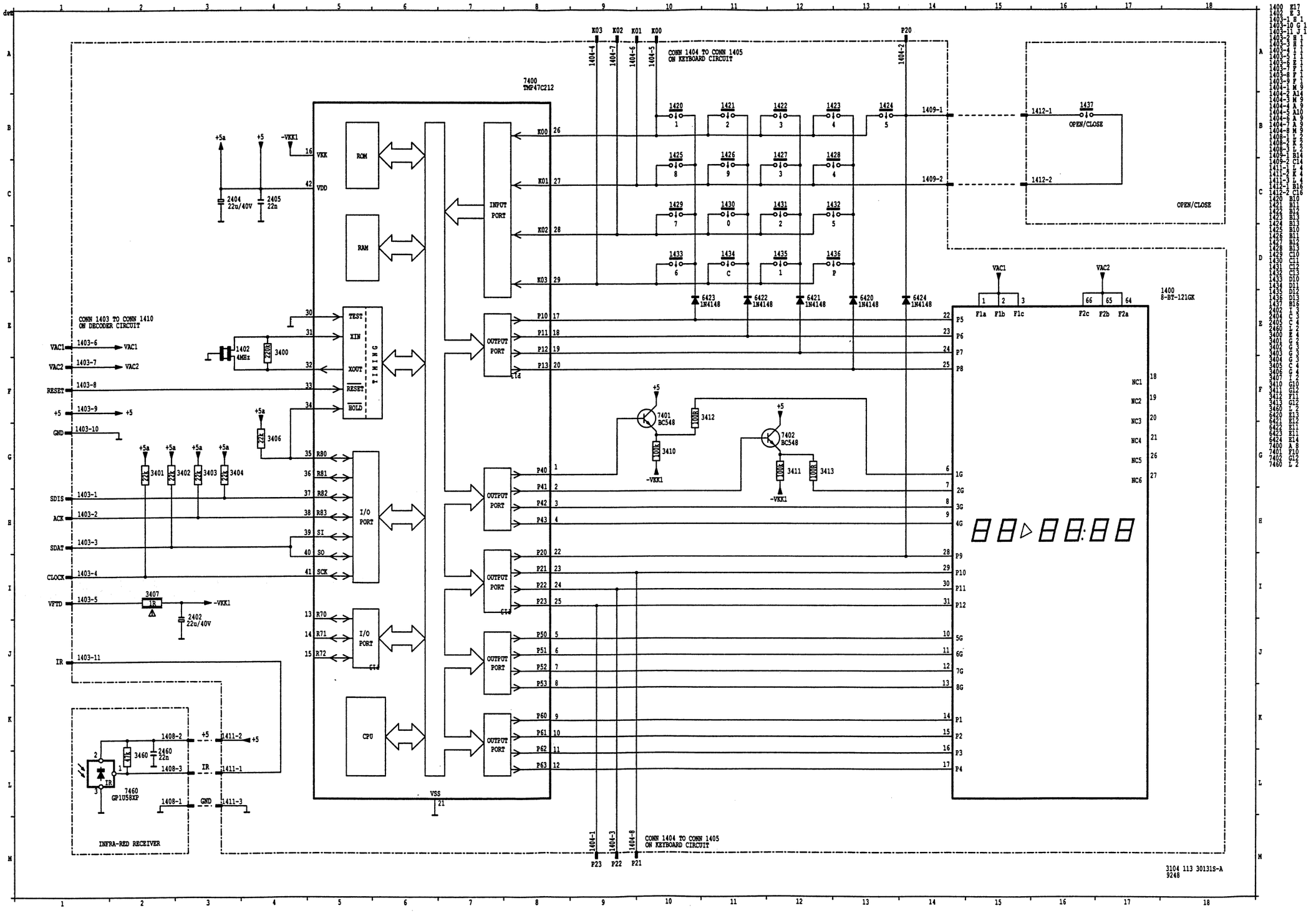


1250 M16
1300 H16
1301 E17
1301 E17
1301 K17
1301 E16
1301 F17
1750 B17
2251 N14
2253 M15
2254 M16
2301 K7
2302 H9
2303 J9
2304 G12
2305 K12
2306 H13
2307 J13
2308 H15
2309 K15
2313 I9
2314 G8
2317 J2
2330 G4
2331 G4
2332 G5
2333 G5
2334 G6
2335 G6
2336 I12
2337 I11
2338 I12
2339 I11
2740 B15
2741 D12
2742 D16
3252 N15
3302 G10
3303 J10
3304 G12
3305 K12
3306 H13
3307 K13
3308 H14
3309 J14
3310 K2
3330 F4
3331 F5
3332 F6
3333 H11
3334 I11
3360 F9
3361 K9
3362 G11
3363 L11
3364 H14
3365 K14
3366 F14
3367 L14
3368 E10
3369 K10
3376 F14
3377 K14
3743 D13
3744 A15
3745 C13
3746 C13
3747 B14
3748 B12
3749 B11
3750 B13
4000 I10
5250 M15
6360 F11
6361 K11
6740 B14
7300 G7
7301 J12
7301 H12
7360 F10
7361 K10
7362 H15
7363 K15
7364 F15
7365 L15
7740 B14
7741 B12
7742 B12

3085_0279_2_B

24

CONTROL & DISPLAY CIRCUIT DIAGRAM
I.R. CIRCUIT DIAGRAM



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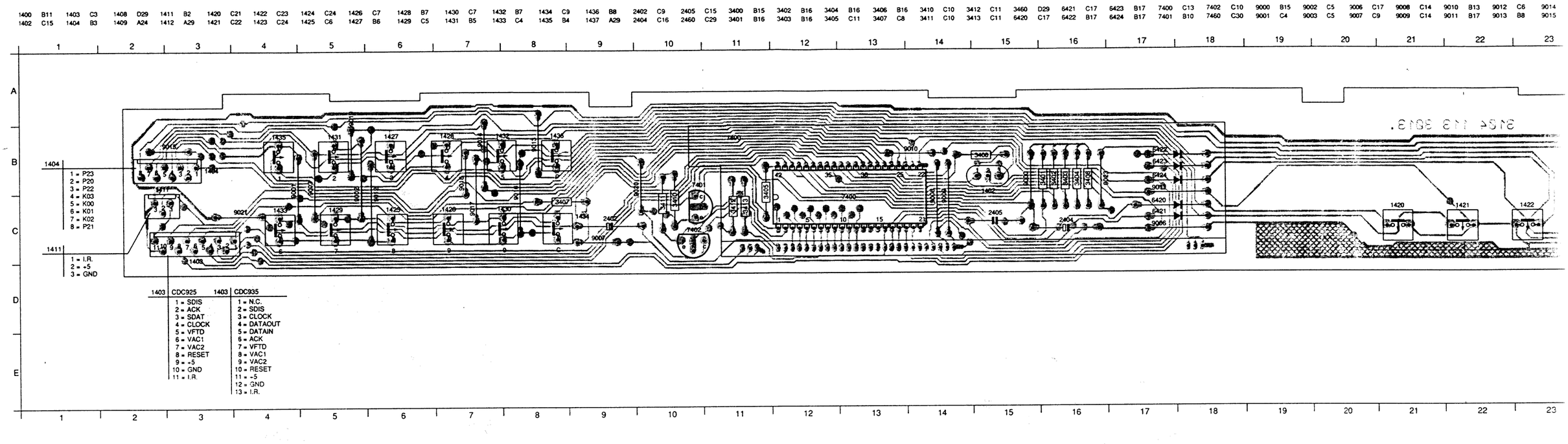
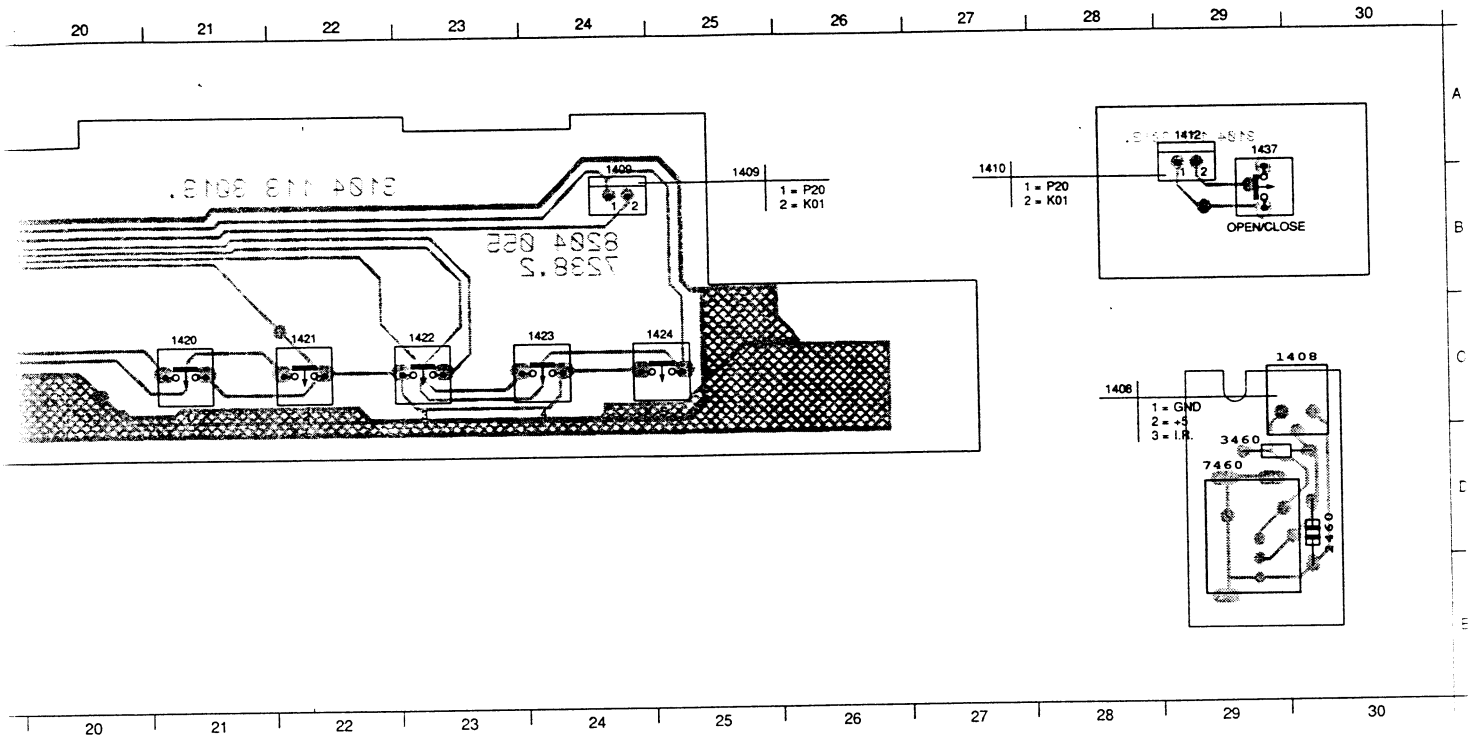
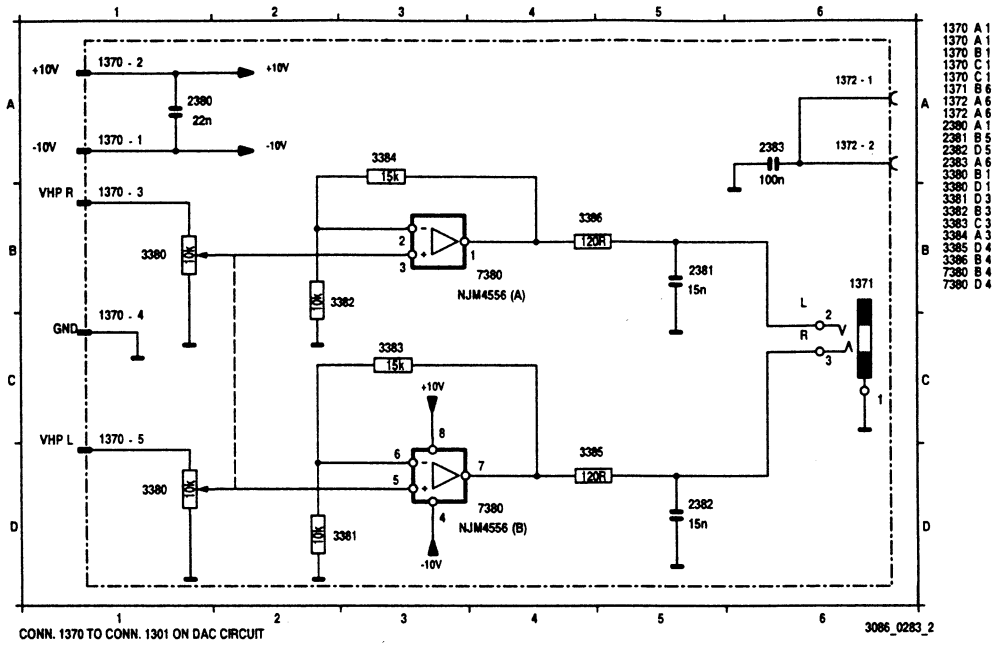
CONTROL & DISPLAY PANEL
OPEN/CLOSE - I.R. PANEL



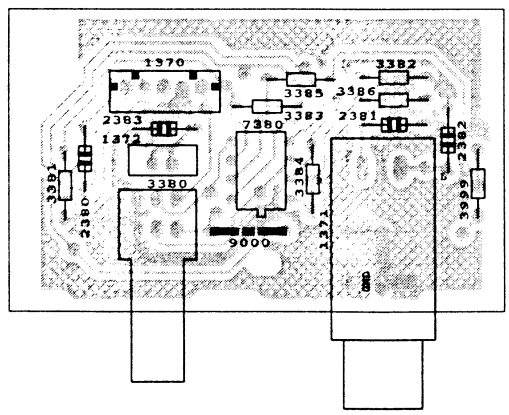
D2	C5	9006	C17	9008	C14	9010	B13	9012	C6	9014	B7	9016	C8	9018	B7	9020	C10	9023	B17
D3	C5	9007	C9	9009	C14	9011	B17	9013	B8	9015	B2	9017	C7	9019	B5	9021	C4		



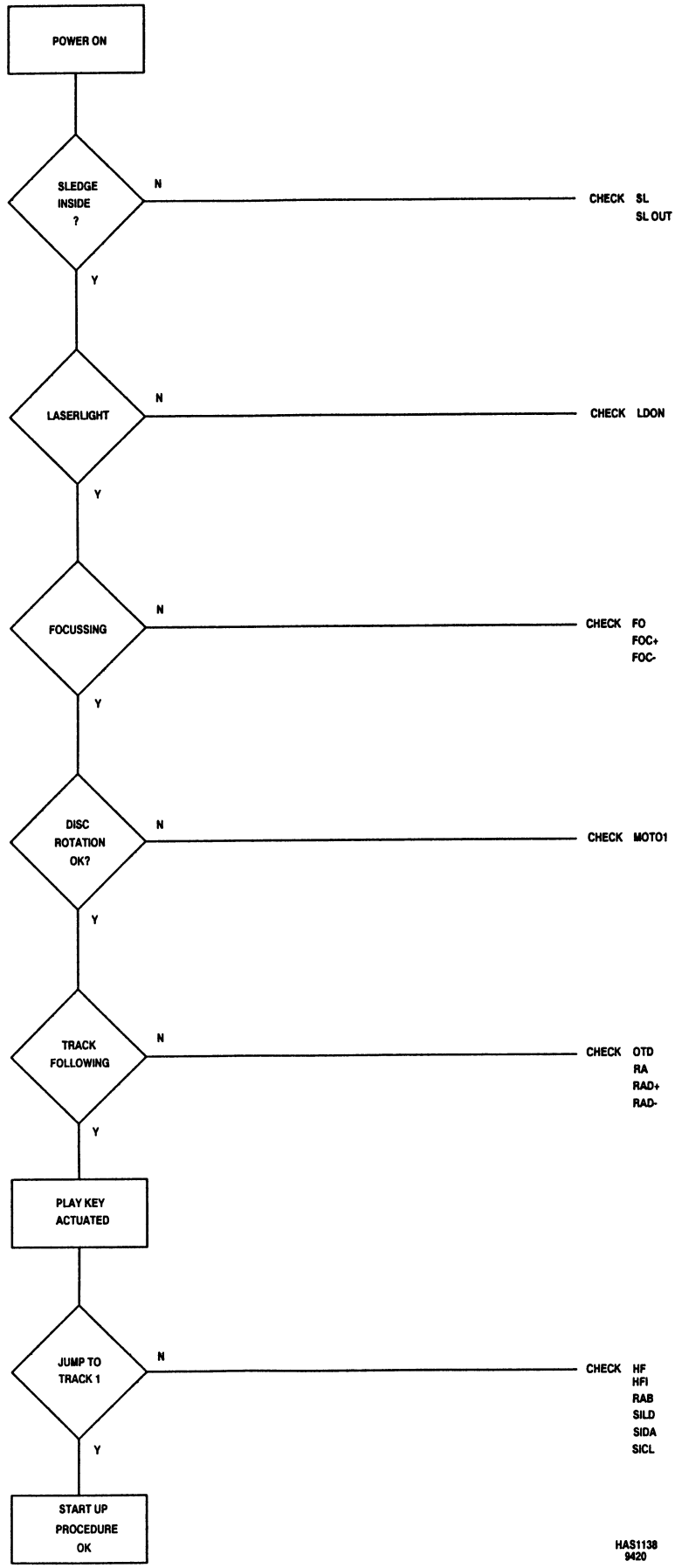
HEADPHONE CIRCUIT DIAGRAM



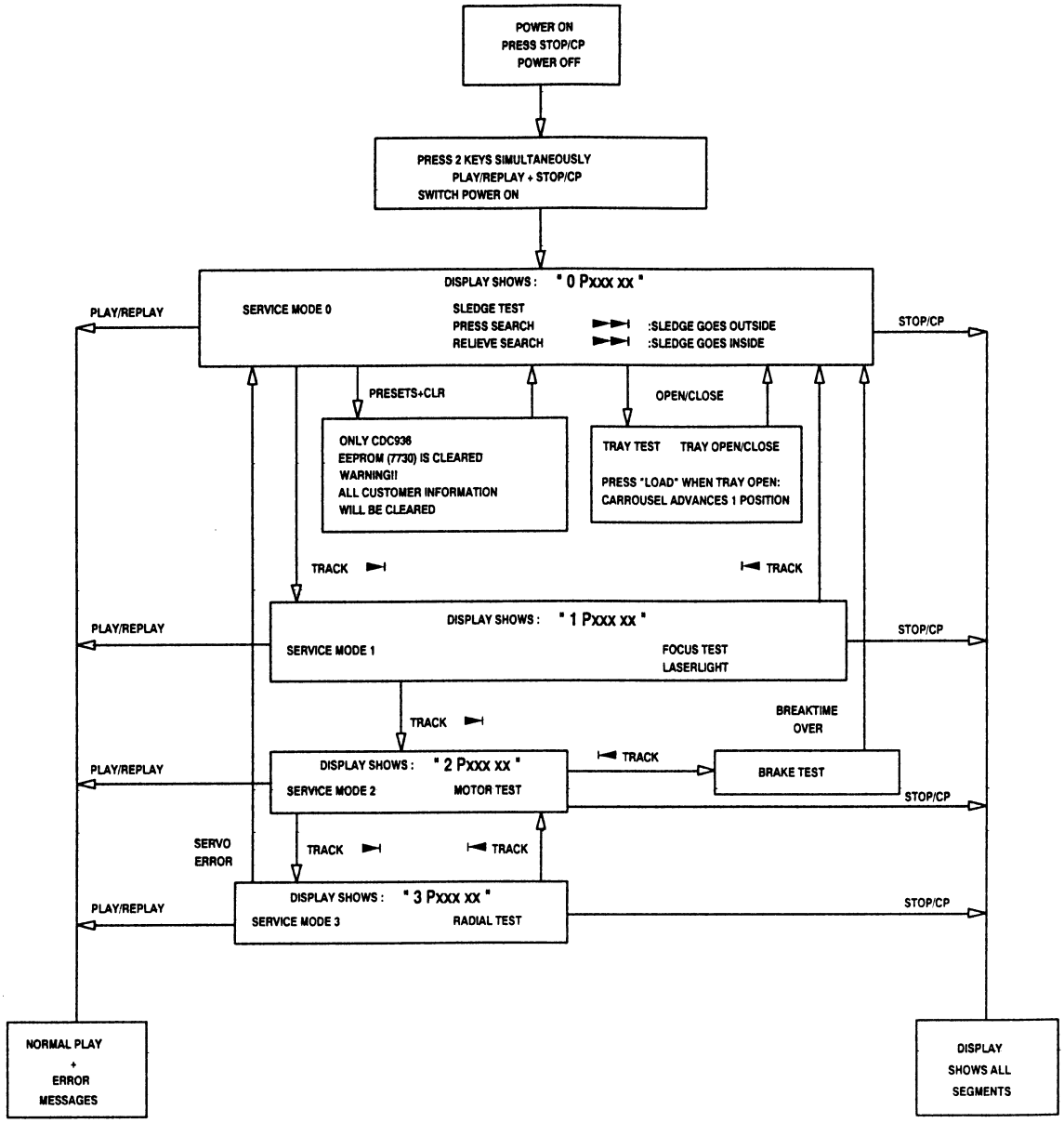
HEADPHONE PANEL



START UP PROCEDURE



SERVICE TEST PROGRAM



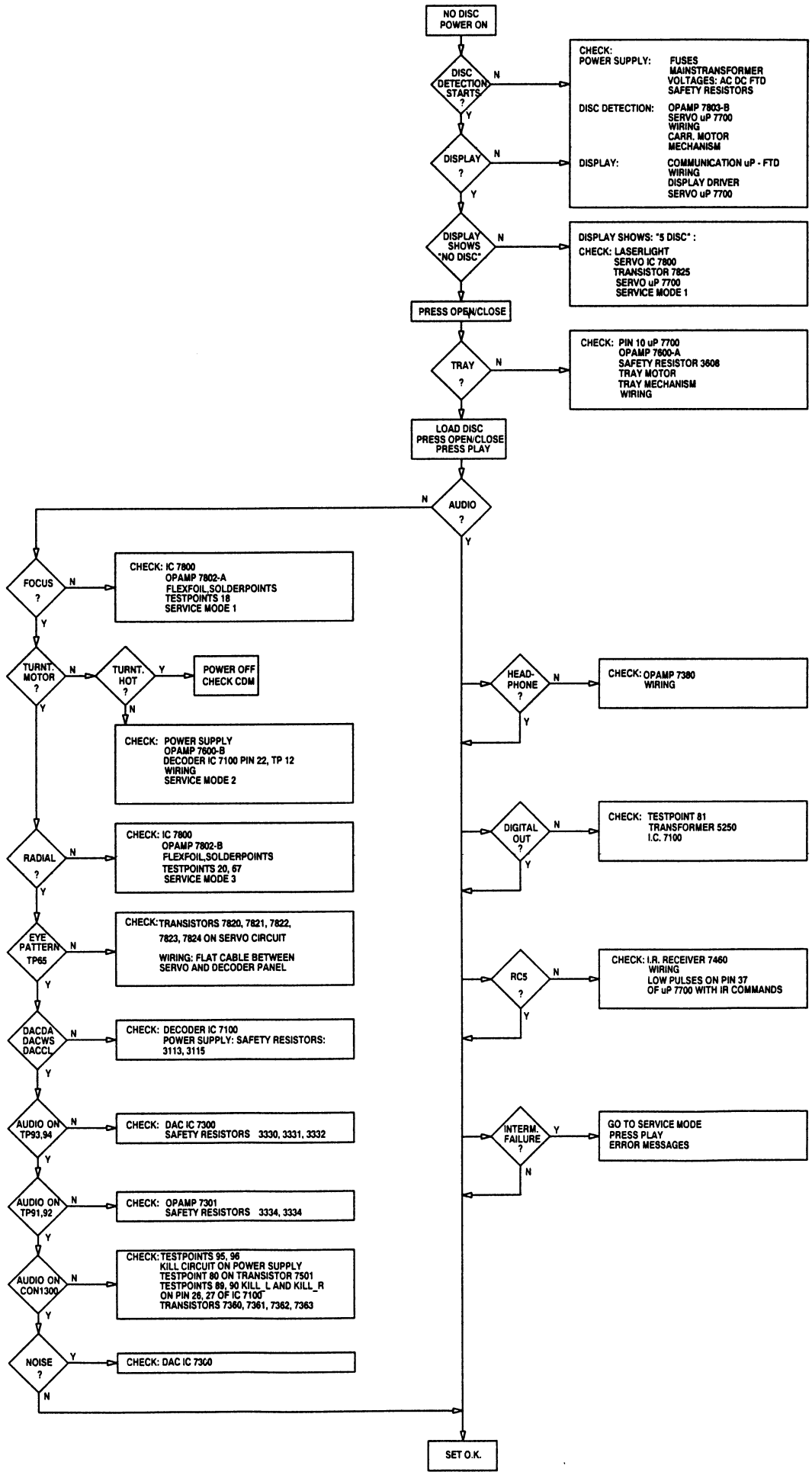
ERROR MESSAGES

- "SLEDGE ERROR"
- "FOCUS ERROR"
- "RADIAL ERROR"
- "MOTOR ERROR"
- "EEP ER"
- "EEP OK"

HAS1137
9419

Pxxx = PROGRAM OF MICROPROCESSOR
xx = VERSION OF PROGRAM

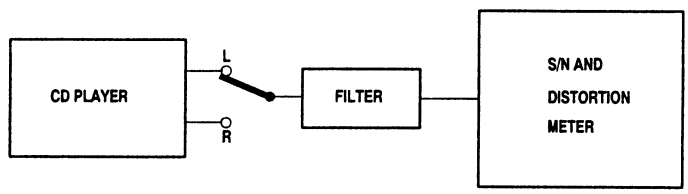
FAULTFINDING GUIDE



SPECIFICATIONS MEASUREMENT

SIGNAL	AUDIO SIGNALS DISC 1	TESTPOINT	REMARKS
ANALOG OUT LEFT	TOTAL HARMONIC DISTORTION TRACKS 10 - 23	FILTER OUTPUT	SEE TECHNICAL DATA
ANALOG OUT RIGHT			SEE DRAWING
ANALOG OUT LEFT	SIGNAL-TO-NOISE RATIO TRACK 1 REFERENCE LEVEL TRACK 49	FILTER OUTPUT	SEE TECHNICAL DATA
ANALOG OUT RIGHT			SEE DRAWING

FILTER = 13TH ORDER FILTER 4822 395 30204



e.g. SOUND TECHNOLOGIE ST1700B

PARTS LIST LOADING

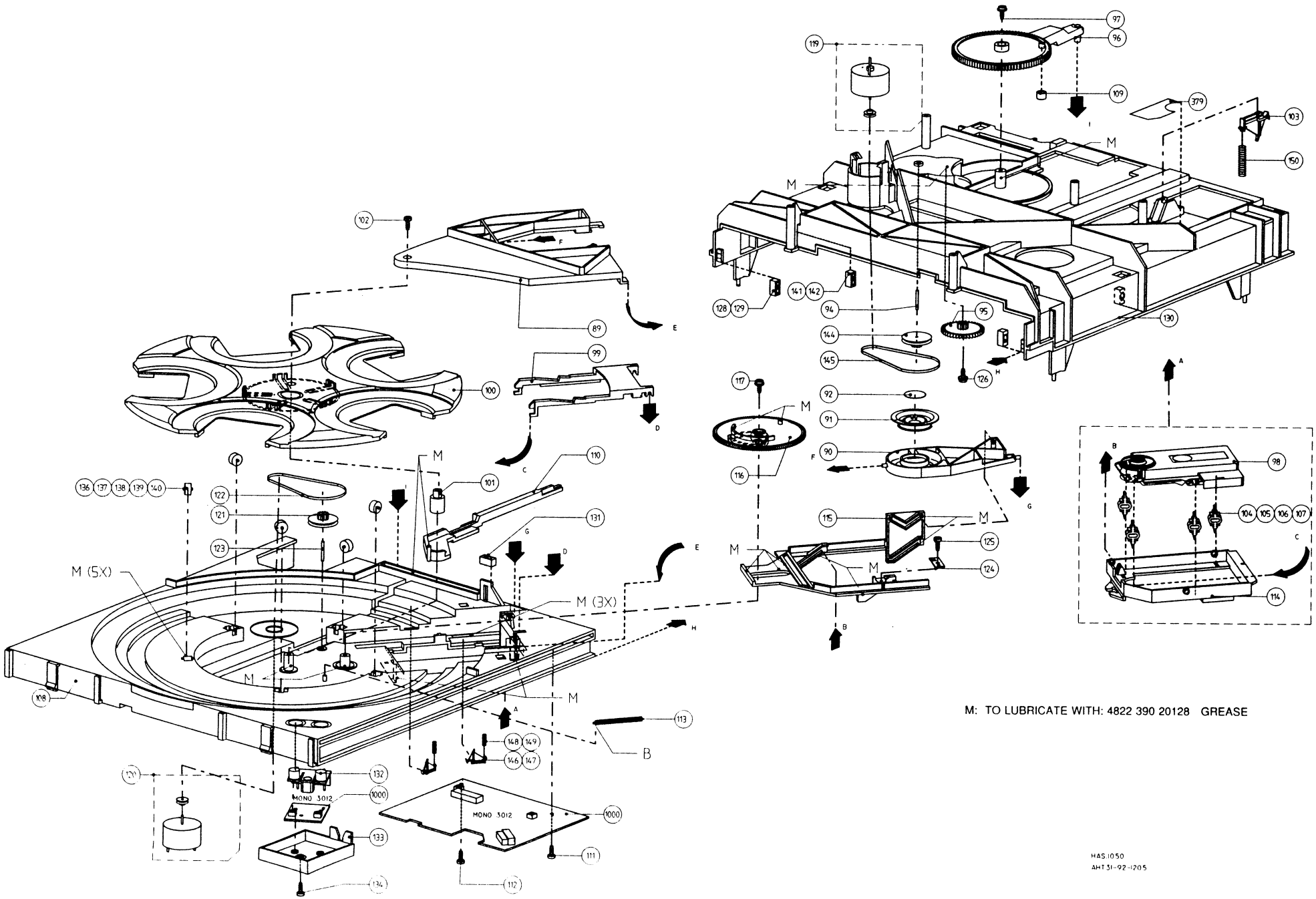
89	4822 466 93131	PRESSURE PLATE
90	4822 256 91912	PRESSURE RING HOLDER
91	4822 532 52386	PRESSURE RING
95	4822 522 33255	GEAR WHEEL
96	4822 535 40105	CRANCK
98	4822 691 30278	CDM 12.1 MECHANISM
99	4822 403 70598	CDM LOCKING BRACKET
100	4822 466 93129	ROTARY DISC 5 CD'S
101	4822 520 20758	BEARING
103	4822 401 11447	TRAY TUMBLER
104	4822 325 50215	SUSPENSION
105	4822 325 50215	SUSPENSION
106	4822 325 50215	SUSPENSION
107	4822 325 50215	SUSPENSION
108	4822 444 50685	TRAY ASSY
109	4822 532 51756	DAMPING GROMMET
110	4822 401 11444	BRACKET
113	4822 492 52313	TENSION SPRING
114	4822 256 91915	CDM SUPPORT
115	4822 466 93134	SLIDE STRIP
116	4822 522 33256	CAM WHEEL
119	4822 528 50335	MOTOR
120	4822 528 50335	MOTOR
121	4822 528 50334	PULLEY
122	4822 358 10115	BELT
128	4822 466 93132	GUIDE
129	4822 466 93132	GUIDE
130	4822 426 90109	FRAME ASSY
131	4822 466 93132	GUIDE
132	4822 403 70599	KEY UNIT
133	4822 466 93171	COVER PLATE
136	4822 528 70646	ROLLER
137	4822 528 70646	ROLLER
138	4822 528 70646	ROLLER
139	4822 528 70646	ROLLER
140	4822 528 70646	ROLLER
141	4822 466 93132	GUIDE
142	4822 466 93132	GUIDE
144	4822 528 50334	PULLEY
145	4822 358 10115	DRIVING BELT
146	4822 402 50291	LIFT TUMBLER
147	4822 402 50291	LIFT TUMBLER
148	4822 492 52123	COMPRESSION SPRING
149	4822 492 52123	COMPRESSION SPRING
150	4822 492 52123	COMPRESSION SPRING

Screws

Plastite M3x6:	125
Plastite M3x10:	111,112
Plastite M3x10 + wascher:	97,126
Plastite M3x16:	102,134

EXPLODED VIEW
LOADING

28

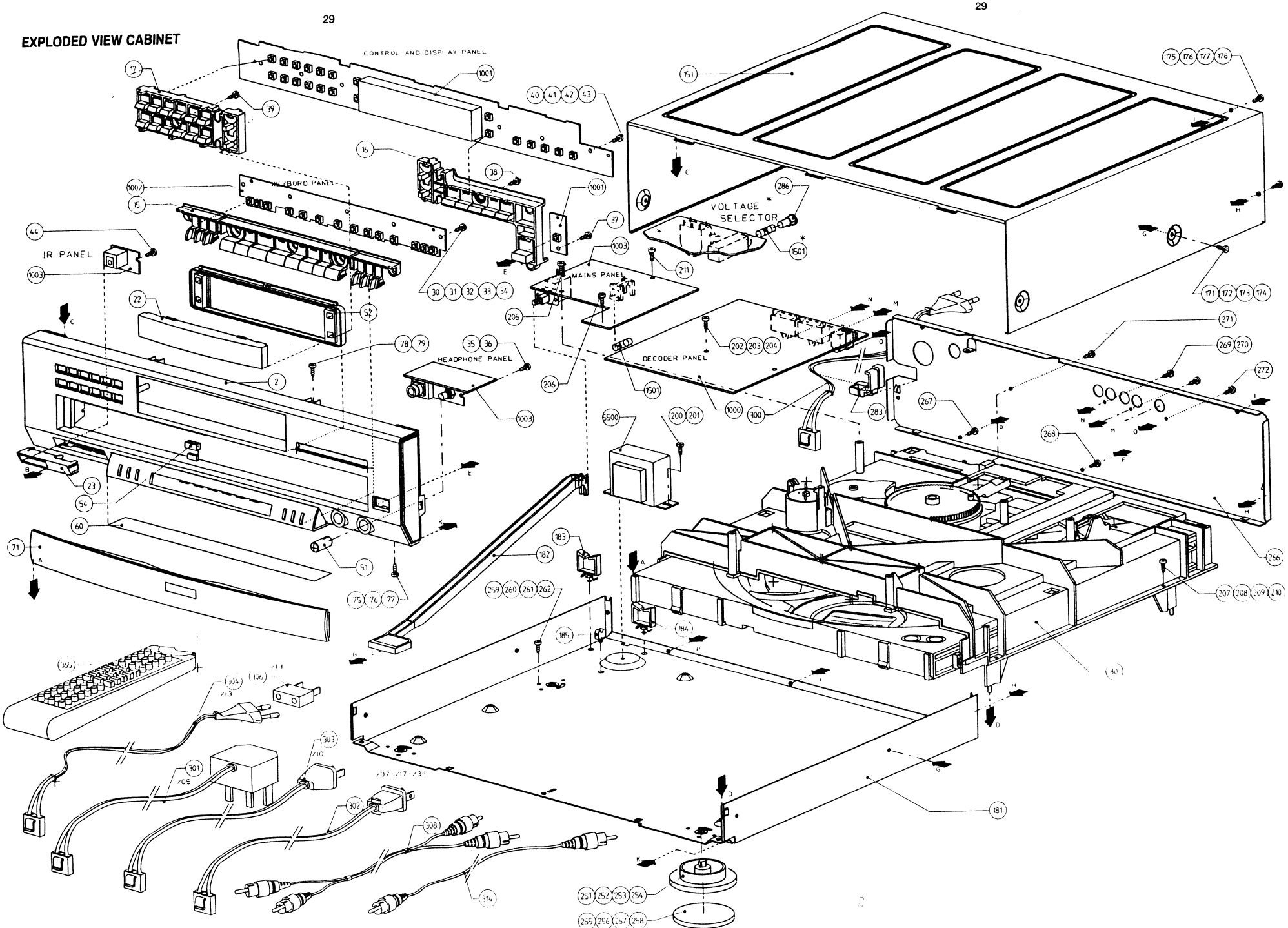


M: TO LUBRICATE WITH: 4822 390 20128 GREASE

HAS.1050
AHT.31-92-1205

29

EXPLODED VIEW CABINET



MECHANICAL PARTS LIST CABINET

2		4822 444 40746	FRONT CDC916
2		4822 444 40748	FRONT CDC926
15		4822 410 63275	KNOBUNIT (NOSE)
16		4822 410 61959	KNOBUNIT
17		4822 410 63276	KNOBUNIT (10-KEY)
23		4822 450 61831	IR WINDOW
51		4822 410 61705	VOLUME KNOB
52		4822 459 40697	WINDOW
54		4822 466 93132	GUIDE
60		4822 444 60815	COVER PLATE
71		4822 444 40747	TRAY FRONT CDC916
71		4822 444 40749	TRAY FRONT CDC926
151		4822 444 60838	COVER
182		4822 403 70601	POWER ROD
251		4822 462 41888	FOOT
252		4822 462 41888	FOOT
253		4822 462 41888	FOOT
254		4822 462 41888	FOOT
255		4822 462 41887	FELT
256		4822 462 41887	FELT
257		4822 462 41887	FELT
258		4822 462 41887	FELT
283	▲	4822 532 60948	BUSHING
300	▲	4822 321 10809	MAINS CORD/00
302	▲	4822 321 10849	MAINS CORD/17
308		4822 321 22832	SBC1072 2XRCA-2XRCA
365		4822 218 10547	IRT ASSY RD6844/00

Not mentioned parts are only available during production period on special request.

Screws

Taptite M3x6:
75,76,77,205,206
Taptite M3x6 + wascher:
200,201
Taptite M3x28:
207,208,209,210

Plastite M3x10:
30,31,32,33,34,35,36,37,40,41,42,43,44,78,79,202,203,204,259,260,261,262,267,269,270,271.
Plastite M3x10 + wascher:
117,171,172,173,174,175,176,177,178,268.

POWER SUPPLY PANEL

MISCELLANEOUS

1500	▲	4822 276 13277	MAINS SWITCH
1501	▲	4822 252 51167	RADIAL FUSE T 200 mA
1501	▲	4822 252 51168	RADIAL FUSE T 80 mA

CAPACITORS

2500	4822 126 11585	22nF +80-20% 25V
2501	4822 126 11585	22nF +80-20% 25V
2502	4822 126 11585	22nF +80-20% 25V
2503	4822 126 11585	22nF +80-20% 25V
2504	4822 126 11585	22nF +80-20% 25V
2505	4822 126 11585	22nF +80-20% 25V
2506	4822 124 40784	3300µF 20% 16V
2507	4822 126 12882	100nF +80-20% 50V
2508	5322 124 22094	220µF 20% 50V
2509	4822 124 41596	22µF 20% 50V
2510	4822 124 80253	2200µF 20% 25V
2544	4822 126 10454	3,3nF 20% 400V
2560	4822 124 40849	330µF 20% 16V

RESISTORS

3560	4822 050 11002	1k 1% 0,4W

DIODES & IC

6500	5322 130 30684	1N4002GP
6501	5322 130 30684	1N4002GP
6502	5322 130 30684	1N4002GP
6503	5322 130 30684	1N4002GP
6504	5322 130 30684	1N4002GP
6505	4822 130 31981	BZX79-C3V9
6506	5322 130 32586	BZV85-C7V5
6507	5322 130 30684	1N4002GP
6508	5322 130 30684	1N4002GP
6560	5322 130 30684	1N4002GP
6561	5322 130 30684	1N4002GP
6562	4822 130 31981	BZX79-C3V9
7500	4822 209 31257	MC79L24ACP

SERVO PANEL

MISCELLANEOUS

		4822 323 50157	FLEXFOIL 18P
1802		4822 242 73557	RESONATOR 8.46MHz
1820		4822 276 13106	TACT SWITCH
1821		4822 276 13106	TACT SWITCH
1830	▲	4822 071 51601	FUSE T 160MA
1831	▲	4822 071 51601	FUSE T 160MA
1840		4822 276 13114	TACT SWITCH
1841		4822 276 13114	TACT SWITCH

CAPACITORS

2800	4822 126 10326	180pF 5% 63V
2801	4822 126 10326	180pF 5% 63V
2802	5322 122 31863	330pF 5% 50V
2803	5322 122 31865	1,5nF 10% 63V
2804	5322 116 80853	560pF 5% 63V
2805	4822 122 33575	220pF 5%NPO 50V
2806	4822 122 33575	220pF 5%NPO 50V
2807	4822 122 33575	220pF 5%NPO 50V
2808	4822 122 33575	220pF 5%NPO 50V
2809	4822 122 33575	220pF 5%NPO 50V
2810	4822 122 33575	220pF 5%NPO 50V
2811	4822 122 33496	100nF 10% 63V
2812	5322 124 21643	22µF 20% 40V
2813	5322 122 32654	22nF 10% 63V
2814	4822 122 33496	100nF 10% 63V
2815	4822 122 33496	100nF 10% 63V
2817	4822 126 10326	180pF 5% 63V
2818	4822 122 33496	100nF 10% 63V
2819	5322 124 41431	22µF 20% 35V
2820	5322 126 10465	3,9nF 10% 63V
2821	4822 122 33496	100nF 10% 63V
2822	5322 124 41431	22µF 20% 35V
2823	4822 122 33496	100nF 10% 63V
2824	4822 126 10326	180pF 5% 63V
2825	4822 122 32627	2.7nF 10% 50V
2826	4822 122 33496	100nF 10% 63V
2827	4822 122 33175	2,2nF 20% 50V
2828	4822 122 33496	100nF 10% 63V
2829	5322 124 41431	22µF 20% 35V
2830	4822 122 33342	33nF 10% 63V
2831	4822 122 33496	100nF 10% 63V
2832	5322 124 41431	22µF 20% 35V
2833	4822 122 33496	100nF 10% 63V
2834	5322 124 41431	22µF 20% 35V
2835	4822 122 33496	100nF 10% 63V
2836	5322 122 32452	47pF 5% 63V
2837	5322 122 32452	47pF 5% 63V
2838	5322 122 32531	100pF 5% 50V
2839	5322 122 32965	18pF 5%NPO 50V
2840	4822 126 10326	180pF 5% 63V
2841	5322 124 21643	22µF 20% 40V
2842	5322 122 31863	330pF 5% 50V
2843	4822 126 10326	180pF 5% 63V
2856	4822 122 33496	100nF 10% 63V
2896	5322 124 41431	22µF 20% 35V
2897	4822 124 40433	47µF 20% 25V
2898	4822 124 40433	47µF 20% 25V

RESISTORS

3800		4822 116 52239	120k 5% 0,5W
3801		4822 116 52233	10k 5% 0,5W
3802		4822 116 52239	120k 5% 0,5W
3803		4822 116 52233	10k 5% 0,5W
3804		4822 116 52291	56k 5% 0,5W
3805		4822 116 52233	10k 5% 0,5W
3806		4822 116 52233	10k 5% 0,5W
3807		4822 116 52233	10k 5% 0,5W
3808		4822 116 52233	10k 5% 0,5W
3809	▲	4822 052 10478	4Ω7 5% 0,33W
3810	▲	4822 052 10478	4Ω7 5% 0,33W
3811		4822 051 20105	1M 5% 0,1W
3812		4822 050 11002	1k 1% 0,4W
3813		4822 050 11002	1k 1% 0,4W
3814		4822 116 52233	10k 5% 0,5W
3815		4822 116 52175	100Ω 5% 0,5W
3816		4822 051 20103	10k 5% 0,1W
3817		4822 116 52244	15k 5% 0,5W
3818		4822 116 52244	15k 5% 0,5W
3820		4822 051 20682	6k8 5% 0,1W
3821		4822 116 52283	4k7 5% 0,5W
3822		4822 116 52233	10k 5% 0,5W
3824	▲	4822 052 10229	22Ω 5% 0,33W
3825		4822 116 52244	15k 5% 0,5W
3826		4822 116 52244	15k 5% 0,5W
3827		4822 051 20103	10k 5% 0,1W
3828		4822 116 52296	6k8 5% 0,5W
3829		4822 116 52233	10k 5% 0,5W
3830	▲	4822 052 10229	22Ω 5% 0,33W
3831		4822 051 20153	15k 5% 0,1W
3832		4822 116 52244	15k 5% 0,5W
3833	▲	4822 052 10478	4Ω7 5% 0,33W
3834		4822 117 10362	7k5 1% 0,1W
3835		4822 116 52296	6k8 5% 0,5W
3836		4822 116 52233	10k 5% 0,5W
3837	▲	4822 052 10478	4Ω7 5% 0,33W
3838	▲	4822 052 10229	22Ω 5% 0,33W
3839		4822 116 52175	100Ω 5% 0,5W
3840		4822 116 52277	39k 5% 0,5W
3841		4822 050 11002	1k 1% 0,4W
3842		4822 116 52175	100Ω 5% 0,5W
3843		4822 116 52249	1k8 5% 0,5W
3844		4822 116 52175	100Ω 5% 0,5W
3845		4822 051 20431	430Ω 5% 0,1W
3846		4822 051 20431	430Ω 5% 0,1W
3847		4822 051 20334	330k 5% 0,1W
3849		4822 051 20303	30k 5% 0,1W
3850		4822 050 11002	1k 1% 0,4W
3851		4822 051 20362	3k6 5% 0,1W
3852		4822 116 52175	100Ω 5% 0,5W
3853		4822 116 52249	1k8 5% 0,5W
3854		4822 050 11002	1k 1% 0,4W
3855		4822 051 20431	430Ω 5% 0,1W
4850		4822 116 52231	820Ω 5% 0,5W
4851		4822 116 52238	12k 5% 0,5W
4852		4822 051 20123	12k 5% 0,1W
4853		4822 116 52238	12k 5% 0,5W
4854		4822 116 52238	12k 5% 0,5W
4855	▲	4822 052 10229	22Ω 5% 0,33W
4856	▲	4822 052 10108	1Ω 5% 0,33W
4857		4822 116 52284	47k 5% 0,5W
4858		4822 116 52284	47k 5% 0,5W
4890		4822 051 20271	270Ω 5% 0,1W
4892		4822 116 52217	270Ω 5% 0,5W
4893		4822 116 52217	270Ω 5% 0,5W
4894		4822 051 10008	0Ω 5% 0,25W
4895		4822 051 10008	0Ω 5% 0,25W
4896		4822 051 10008	0Ω 5% 0,25W
4897		4822 051 10008	0Ω 5% 0,25W
4898		4822 051 10008	0Ω 5% 0,25W
4899		4822 051 10008	0Ω 5% 0,25W

COILS

5801	4822 157 53447	COIL
5802	4822 157 53447	COIL

TRANSISTORS & IC'S

7800	4822 209 31064	TDA1301T/N1
7801	4822 209 71579	MC7805.2
7802	4822 209 72587	TCA0372
7803	4822 209 72587	TCA0372
7820	4822 130 60887	BF840
7821	5322 130 41982	BC848B
7822	5322 130 41983	BC858B
7823	5322 130 41982	BC848B
7824	5322 130 41982	BC848B
7825	4822 130 42675	BC818

DECODER-DAC PANEL

MISCELLANEOUS

26	4822 255 40991	LED SOCKET
1010	4822 267 51094	FLEX CONNECTOR
1050	5322 242 73686	RESONATOR 12 MHz
1101	4822 242 81705	CRYSTAL33.86 MHz
1250	4822 267 31729	DIGITAL OUT SOCKET
1300	4822 267 20452	ANALOG OUT SOCKET
1602	4822 276 13106	TACT SWITCH

CAPACITORS

2100	4822 122 33175	2,2nF 20% 50V
2101	5322 122 32452	47pF 5% 63V
2102	5322 122 32654	22nF 10% 63V
2103	4822 122 33496	100nF 10% 63V
2105	5322 122 32531	100pF 5% 50V
2110	4822 124 40433	47µF 20% 25V
2111	5322 122 32654	22nF 10% 63V
2112	4822 122 33847	10pF 5% 50V
2113	4822 122 33191	22pF 5% 50V
2114	5322 122 34123	1nF 10% 50V
2115	5322 122 32654	22nF 10% 63V
2116	4822 124 40433	47µF 20% 25V
2118	5322 122 32452	47pF 5% 63V
2140	4822 122 32542	47nF 10% 63V
2141	4822 122 33496	100nF 10% 63V
2142	5322 122 32452	47pF 5% 63V
2143	5322 122 32654	22nF 10% 63V
2251	4822 124 40248	10µF 20% 63V
2253	4822 122 33496	100nF 10% 63V
2254	5322 122 32654	22nF 10% 63V
2301	5322 122 32268	470pF 10% 50V
2302	4822 124 40433	47µF 20% 25V
2303	4822 124 40433	47µF 20% 25V
2304	5322 122 32661	56pF 5% 50V
2305	5322 122 32661	56pF 5% 50V
2306	4822 124 80865	10µF 20% 25V
2307	4822 124 80865	10µF 20% 25V
2308	4822 122 33575	220pF 5%NPO 50V
2309	4822 122 33575	220pF 5%NPO 50V
2313	4822 124 40433	47µF 20% 25V
2314	5322 122 34099	470pF 10% 63V
2317	5322 122 32654	22nF 10% 63V
2330	4822 122 33496	100nF 10% 63V
2331	4822 124 40433	47µF 20% 25V
2332	4822 122 33496	100nF 10% 63V
2333	4822 124 40433	47µF 20% 25V
2334	4822 122 33496	100nF 10% 63V
2335	4822 124 40433	47µF 20% 25V
2336	4822 122 33496	100nF 10% 63V
2338	4822 126 11585	22nF +80-20% 25V
2339	4822 126 11585	22nF +80-20% 25V
2501	4822 122 33496	100nF 10% 63V
2502	4822 122 33496	100nF 10% 63V
2504	4822 122 33496	100nF 10% 63V
2600	4822 122 33496	100nF 10% 63V
2601	5322 122 32654	22nF 10% 63V
2602	5322 122 32654	22nF 10% 63V
2701	5322 122 32654	22nF 10% 63V
2703	5322 122 32654	22nF 10% 63V
2704	5322 122 32531	100pF 5% 50V
2705	5322 122 32531	100pF 5% 50V
2706	5322 122 32531	100pF 5% 50V
2707	5322 122 32654	22nF 10% 63V
2740	4822 124 40433	47µF 20% 25V
2741	5322 122 32654	22nF 10% 63V
2742	5322 122 32654	22nF 10% 63V

RESISTORS

3100	4822 051 20222	2k2 5% 0,1W
3101	4822 051 20223	22k 5% 0,1W
3102	4822 116 52175	100Ω 5% 0,5W
3107	4822 051 20331	330Ω 5% 0,1W
3108	4822 051 20221	220Ω 5% 0,1W
3109	4822 051 20221	220Ω 5% 0,1W
3110	4822 051 20221	220Ω 5% 0,1W
3111	4822 051 20221	220Ω 5% 0,1W
3113 ▲	4822 052 10338	3Ω3 5% 0,33W
3114	4822 051 20105	1M 5% 0,1W
3115 ▲	4822 052 10338	3Ω3 5% 0,33W
3116	4822 051 20101	100Ω 5% 0,1W
3117	4822 051 20008	0Ω JUMP. (0805)
3140	4822 051 20333	33k 5% 0,1W
3141	4822 051 20333	33k 5% 0,1W
3142	4822 051 20333	33k 5% 0,1W
3143	4822 116 52234	100k 5% 0,5W
3144	4822 116 52234	100k 5% 0,5W
3145 ▲	4822 052 10229	22Ω 5% 0,33W
3146	4822 051 20101	100Ω 5% 0,1W
3147	4822 116 52283	4k7 5% 0,5W
3252	4822 051 20689	68Ω 5% 0,1W
3302	4822 051 20103	10k 5% 0,1W
3303	4822 051 20103	10k 5% 0,1W
3304	4822 051 20153	15k 5% 0,1W
3305	4822 051 20153	15k 5% 0,1W
3306	4822 051 20223	22k 5% 0,1W
3307	4822 051 20223	22k 5% 0,1W
3308	4822 051 10102	1k 2% 0,25W
3309	4822 051 10102	1k 2% 0,25W
3310	4822 051 20008	0Ω JUMP. (0805)
3330 ▲	4822 052 10338	3Ω3 5% 0,33W
3331 ▲	4822 052 10338	3Ω3 5% 0,33W
3332 ▲	4822 052 10338	3Ω3 5% 0,33W
3333 ▲	4822 052 10478	4Ω7 5% 0,33W
3334 ▲	4822 052 10478	4Ω7 5% 0,33W
3360	4822 116 52284	47k 5% 0,5W
3361	4822 116 52284	47k 5% 0,5W
3362	4822 116 52258	220k 5% 0,5W
3363	4822 051 20224	220k 5% 0,1W
3364	4822 051 20222	2k2 5% 0,1W
3365	4822 051 20222	2k2 5% 0,1W
3366	4822 116 52256	2k2 5% 0,5W
3367	4822 116 52256	2k2 5% 0,5W
3368	4822 051 20103	10k 5% 0,1W
3369	4822 051 20103	10k 5% 0,1W
3376	4822 051 10102	1k 2% 0,25W
3377	4822 051 10102	1k 2% 0,25W
3500	4822 051 20561	560Ω 5% 0,1W
3501	4822 051 10102	1k 2% 0,25W
3502	4822 051 20223	22k 5% 0,1W
3503	4822 051 20223	22k 5% 0,1W
3504	4822 051 20223	22k 5% 0,1W

3505	4822 051 20472	4k7 5% 0,1W
3508 ▲	4822 052 10108	1Ω 5% 0,33W
3601	4822 051 20123	12k 5% 0,1W
3602	4822 051 20123	12k 5% 0,1W
3603 ▲	4822 052 10229	22Ω 5% 0,33W
3604	4822 116 52276	3k9 5% 0,5W
3606	4822 116 52238	12k 5% 0,5W
3607	4822 051 20123	12k 5% 0,1W
3608 ▲	4822 052 10108	1Ω 5% 0,33W
3609	4822 051 20224	220k 5% 0,1W
3700	4822 051 20224	220k 5% 0,1W
3701	4822 116 52257	22k 5% 0,5W
3703	4822 051 20223	22k 5% 0,1W
3706	4822 116 52257	22k 5% 0,5W
3707	4822 116 52257	22k 5% 0,5W
3708	4822 051 20223	22k 5% 0,1W
3709	4822 051 20223	22k 5% 0,1W
3710	4822 051 20223	22k 5% 0,1W
3711	4822 051 20223	22k 5% 0,1W
3714	4822 051 20223	22k 5% 0,1W
3715	4822 051 20103	10k 5% 0,1W
3716	4822 051 20472	4k7 5% 0,1W
3717	4822 051 20223	22k 5% 0,1W
3718	4822 051 20223	22k 5% 0,1W
3719	4822 050 11002	1k 1% 0,4W
3720	4822 050 11002	1k 1% 0,4W
3723	4822 051 20223	22k 5% 0,1W
3724	4822 116 52257	22k 5% 0,5W
3725	4822 050 11002	1k 1% 0,4W
3726	4822 116 52257	22k 5% 0,5W
3727	4822 051 20562	5k6 5% 0,1W
3735	4822 051 20223	22k 5% 0,1W
3736	4822 051 20223	22k 5% 0,1W
3737	4822 051 20223	22k 5% 0,1W
3738	4822 051 20223	22k 5% 0,1W
3740	4822 051 20223	22k 5% 0,1W
3743 ▲	4822 052 10109	10Ω 5% 0,33W
3744	4822 116 52175	100Ω 5% 0,5W
3745	4822 051 20473	47k 5% 0,1W
3746	4822 051 20183	18k 5% 0,1W
3747	4822 051 20473	47k 5% 0,1W
3748	4822 051 20473	47k 5% 0,1W
3749	4822 116 52284	47k 5% 0,5W
3750	4822 051 20473	47k 5% 0,1W
3751	4822 051 10102	1k 2% 0,25W
3752	4822 051 20223	22k 5% 0,1W
4000	4822 051 10008	0Ω 5% 0,25W
4001	4822 051 10008	0Ω 5% 0,25W
4002	4822 051 20008	0Ω JUMP. (0805)
4005	4822 051 10008	0Ω 5% 0,25W
4006	4822 051 10008	0Ω 5% 0,25W
4009	4822 051 10008	0Ω 5% 0,25W
4011	4822 051 10008	0Ω 5% 0,25W
4012	4822 051 10008	0Ω 5% 0,25W

COILS

5100	4822 157 62552	2,2µH
5250	4822 157 70601	DIG.OUT TRAFO

DIODES, TRANSISTORS & IC'S

6360	4822 130 30621	1N4148
6361	4822 130 30621	1N4148
6500	4822 130 31981	BZX79-C3V9
6740	4822 130 31983	BAT85
7100	4822 209 33339	SAA7345GP/M5
7300	4822 209 33252	TDA1549T/N1
7301	4822 209 83274	NJM4560D
7360	5322 130 42012	BC858
7361	5322 130 42012	BC858
7362	4822 130 42804	BC817-25
7363	4822 130 42804	BC817-25
7364	4822 130 42804	BC817-25
7365	4822 130 42804	BC817-25
7500	5322 130 42012	BC858
7501	5322 130 42012	BC858
7502	4822 209 80817	L7805CV
7600	4822 209 72587	TCA0372
7601	4822 130 83031	BPW85A
7700	4822 209 33642	MC68HC11ER32/P161
7740	5322 130 42012	BC858
7741	4822 130 61207	BC848
7742	4822 130 61207	BC848

DISPLAY PANEL

MISCELLANEOUS

	4822 256 91908	DISPLAY HOLDER
1400	4822 130 91116	DISPLAY 8-BT-121GK
1402	4822 242 72527	RESONATOR 4MHz
1420	4822 276 13114	TACT SWITCH
1421	4822 276 13114	TACT SWITCH
1422	4822 276 13114	TACT SWITCH
1423	4822 276 13114	TACT SWITCH
1424	4822 276 13114	TACT SWITCH
1425	4822 276 13114	TACT SWITCH
1426	4822 276 13114	TACT SWITCH
1427	4822 276 13114	TACT SWITCH
1428	4822 276 13114	TACT SWITCH
1429	4822 276 13114	TACT SWITCH
1430	4822 276 13114	TACT SWITCH
1431	4822 276 13114	TACT SWITCH
1432	4822 276 13114	TACT SWITCH
1433	4822 276 13114	TACT SWITCH
1434	4822 276 13114	TACT SWITCH
1435	4822 276 13114	TACT SWITCH
1436	4822 276 13114	TACT SWITCH
1437	4822 276 13213	TACT SWITCH

CAPACITORS

2402	5322 124 21643	22µF 20% 40V
2404	5322 124 21643	22µF 20% 40V
2405	4822 126 11585	22nF +80-20% 25V

RESISTORS

3400	4822 116 52258	220k 5% 0,5W
3401	4822 116 52257	22k 5% 0,5W
3402	4822 116 52257	22k 5% 0,5W
3403	4822 116 52257	22k 5% 0,5W
3404	4822 116 52257	22k 5% 0,5W
3406	4822 116 52257	22k 5% 0,5W
3407 ▲	4822 052 10108	1Ω 5% 0,33W
3410	4822 116 52234	100k 5% 0,5W
3411	4822 116 52234	100k 5% 0,5W
3412	4822 116 52175	100Ω 5% 0,5W
3413	4822 116 52175	100Ω 5% 0,5W

DIODES, TRANSISTORS & I.C.'s

6420	4822 130 30621	1N4148
6421	4822 130 30621	1N4148
6422	4822 130 30621	1N4148
6423	4822 130 30621	1N4148
6424	4822 130 30621	1N4148
7400	4822 209 30249	TMP47C212AN
7401	4822 130 40938	BC548
7402	4822 130 40938	BC548

KEYBOARD PANEL

1438	4822 276 13114	TACT SWITCH
1439	4822 276 13114	TACT SWITCH
1440	4822 276 13213	TACT SWITCH
1441	4822 276 13114	TACT SWITCH
1442	4822 276 13213	TACT SWITCH
1443	4822 276 13213	TACT SWITCH
1444	4822 276 13213	TACT SWITCH
1445	4822 276 13213	TACT SWITCH
1446	4822 276 13213	TACT SWITCH
1447	4822 276 13213	TACT SWITCH
1448	4822 276 13114	TACT SWITCH
1449	4822 276 13114	TACT SWITCH
1450	4822 276 13114	TACT SWITCH
6425	4822 130 30621	1N4148
6426	4822 130 30621	1N4148
6427	4822 130 30621	1N4148

IR PANEL

2460	4822 126 11585	22nF +80-20% 25V
3460	4822 116 52284	47k 5% 0,5W
7460	4822 214 52009	GP1U58XP

HEADPHONE PANEL

1371	4822 267 31453	HEADPHONE SOCKET
2380	4822 126 11585	22nF +80-20% 25V
2381	4822 121 51387	10nF 20% 16V
2382	4822 121 51387	10nF 20% 16V
2383	4822 126 12882	100nF +80-20% 50V
3380	4822 101 21199	10kX2 20% 0,025W
3381	4822 116 52233	10k 5% 0,5W
3382	4822 116 52233	10k 5% 0,5W
3383	4822 116 52244	15k 5% 0,5W
3384	4822 116 52244	15k 5% 0,5W
3385	4822 116 52206	120Ω 5% 0,5W
3386	4822 116 52206	120Ω 5% 0,5W
7380	4822 209 82362	NJM4556D

MAINS VOLTAGE

5500 ▲	4822 146 31373	MAINS TRAFO /00
5500 ▲	4822 146 31374	MAINS TRAFO /17